

MARRONE BIO INNOVATIONS INC

FORM S-3

(Securities Registration Statement (simplified form))

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Address	1540 DREW AVENUE DAVIS, CA 95618
Telephone	530-750-2800
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Industry	Agricultural Chemicals
Sector	Basic Materials
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SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER
THE SECURITIES ACT OF 1933

Marrone Bio Innovations, Inc.

(Exact name of registrant as specified in its charter)

Delaware
(State or other jurisdiction of
incorporation or organization)

20-5137161
(I.R.S. Employer
Identification No.)

1540 Drew Avenue
Davis, California 95618
(530) 750-2800

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Pamela G. Marrone, Ph.D.
President and Chief Executive Officer
Marrone Bio Innovations, Inc.
1540 Drew Avenue
Davis, California 95618
(530) 750-2800

(Name, address, including zip code, and telephone number, including area code, of agent for service)

Copy to:
Charles S. Farman
Alfredo B.D. Silva
Morrison & Foerster LLP
755 Page Mill Road
Palo Alto, CA 94304
(650) 813-6309

Approximate date of commencement of proposed sale to the public: From time to time after the effective date of this registration statement.

If the only securities being registered on this form are being offered pursuant to dividend or interest reinvestment plans, please check the following box:

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box:

If this form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

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If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, please check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or a smaller reporting company. See the definitions of "large accelerated filer," "accelerated filer" and "smaller reporting company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer Accelerated filer
Non-accelerated filer (Do not check if a smaller reporting company) Smaller reporting company

CALCULATION OF REGISTRATION FEE

Title of Each Class of Securities to be Registered (1)	Amount to be Registered (1)(2)(3)	Proposed Maximum Offering Price Per Unit (1)	Proposed Maximum Aggregate Offering Price (1)(2)(3)	Amount of Registration Fee (4)
Common Stock, par value \$0.00001 per share				
Preferred Stock, par value \$0.00001 per share				
Debt Securities				
Warrants				
Rights				
Units				
Total			\$50,000,000	\$5,795

- (1) Not specified as to each class of securities to be registered pursuant to General Instruction II.D of Form S-3 under the Securities Act of 1933, as amended, or the Securities Act.
- (2) The registrant is hereby registering an indeterminate amount and number of each identified class of the identified securities up to a proposed maximum aggregate offering price of \$50,000,000, which may be offered from time to time at indeterminate prices, including securities that may be purchased by underwriters. The registrant has estimated the proposed maximum aggregate offering price solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act. Securities registered hereunder may be sold separately, together or as units with other securities registered hereunder. For so long as the registrant's public float remains below \$75,000,000, the registrant will limit its issuance of securities in any twelve month calendar period to an aggregate market value (determined as of the time of issuance of that security) not in excess of one-third of the aggregate market value of all voting and non-voting common equity held by non-affiliates of the registrant in compliance with General Instruction I.B.6 of Form S-3.
- (3) The registrant is hereby registering an indeterminate amount and number of each identified class of the identified securities as may be issued upon conversion, exchange, exercise or settlement of any other securities that provide for such conversion, exchange, exercise or settlement.
- (4) Calculated pursuant to Rule 457(o) under the Securities Act.

The registrant hereby amends this Registration Statement on such date or dates as may be necessary to delay its effective date until the registrant shall file a further amendment which specifically states that this Registration Statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933, as amended, or until the Registration Statement shall become effective on such date as the Commission, acting pursuant to said Section 8(a), may determine.

EXPLANATORY NOTE

This registration statement contains two prospectuses:

- a base prospectus which covers the offering, issuance and sale by the registrant of up to a maximum aggregate offering price of \$50,000,000 of the registrant's common stock, preferred stock, debt securities, warrants, rights and/or units; and
- an offering agreement prospectus supplement covering the offering, issuance and sale by the registrant of up to a maximum aggregate offering price of \$15,000,000 of the registrant's common stock that may be issued and sold under an At the Market Offering Agreement, dated December 9, 2016 with H.C. Wainwright & Co., LLC.

The base prospectus immediately follows this explanatory note. The offering agreement prospectus supplement immediately follows the base prospectus. The common stock that may be offered, issued and sold by the registrant under the offering agreement prospectus supplement is included in the \$50,000,000 of securities that may be offered, issued and sold by the registrant under the base prospectus.

The information in this prospectus is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus is not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 9, 2016

\$50,000,000



**Common Stock
Preferred Stock
Debt Securities
Warrants
Rights
Units**

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY READ AND CONSIDER THE RISK FACTORS DESCRIBED IN THIS PROSPECTUS, ANY ACCOMPANYING PROSPECTUS SUPPLEMENT AND IN THE DOCUMENTS INCORPORATED BY REFERENCE INTO THIS PROSPECTUS. SEE “[RISK FACTORS](#)” BEGINNING ON PAGE 2.

From time to time, we may offer and sell, in one or more offerings, in amounts, at prices and on terms determined at the time of any such offering, common stock, preferred stock, debt securities, warrants, rights to purchase such securities, either individually or in units, with a total value of up to \$50,000,000.

Our common stock trades on the Nasdaq Capital Market under the symbol “MBII.” On December 5, 2016, the last reported sale price of the common stock on the Nasdaq Capital Market was \$2.42 per share.

As of November 9, 2016, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$48.6 million based on 24,658,302 shares of outstanding stock, of which 18,852,942 are held by non-affiliates, and a per share price of \$2.58, which was the closing sale price of our common stock on November 9, 2016. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75,000,000. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus. As of November 9, 2016, one-third of our public float is equal to approximately \$16.2 million.

We will provide specific terms of these securities in supplements to this prospectus. The prospectus supplement will also describe the specific manner in which we will offer the securities and may also supplement, update or amend information contained in this document. You should read this prospectus and any supplement carefully before you purchase any of our securities.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

We may offer the securities in amounts, at prices and on terms determined at the time of offering. We may sell the securities directly to you, through agents we select or through underwriters and dealers we select. If we use agents, underwriters or dealers to sell the securities, we will name them and describe their compensation in a prospectus supplement.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2016

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No person has been authorized to give any information or make any representations in connection with this offering other than those contained or incorporated by reference in this prospectus and any accompanying prospectus supplement in connection with the offering described in this prospectus and any accompanying prospectus supplement, and, if given or made, such information or representations must not be relied upon as having been authorized by us. Neither this prospectus nor any prospectus supplement shall constitute an offer to sell or a solicitation of an offer to buy offered securities in any jurisdiction in which it is unlawful for such person to make such an offering or solicitation. Neither the delivery of this prospectus or any prospectus supplement nor any sale made hereunder shall under any circumstances imply that the information contained or incorporated by reference in this prospectus or in any prospectus supplement is correct as of any date subsequent to the date of this prospectus supplement or of any prospectus supplement.

ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the Securities and Exchange Commission, or SEC, using a “shelf” registration process. Under this shelf registration process, we may, from time to time, issue and sell to the public any part of the securities described in this prospectus in one or more offerings up to a total dollar amount of \$50,000,000.

This prospectus provides you with a general description of the securities we may offer. Each time we sell the securities, we will provide a prospectus supplement containing specific information about the terms of that offering. The prospectus supplement may also add, update or change information in this prospectus or in documents incorporated by reference in this prospectus. To the extent that any statement that we make in a prospectus supplement is inconsistent with statements made in this prospectus or in documents incorporated by reference in this prospectus, the statements made or incorporated by reference in this prospectus will be deemed modified or superseded by those made in the prospectus supplement. You should carefully read both this prospectus and any prospectus supplement together with the additional information described under the heading “Where You Can Find More Information” before buying any securities offered in this offering.

THIS PROSPECTUS MAY NOT BE USED TO OFFER AND SELL SECURITIES UNLESS IT IS ACCOMPANIED BY A PROSPECTUS SUPPLEMENT.

For purposes of this prospectus, references to the terms “MBI,” “the Company,” “we,” “us” and “our” refer to Marrone Bio Innovations, Inc., unless the context otherwise requires.

The registration statement containing this prospectus, including exhibits to the registration statement, provides additional information about us and the securities offered under this prospectus. The registration statement can be read at the SEC’s website or at the SEC offices mentioned under the heading “Where You Can Find More Information.”

ABOUT MBI

We make bio-based pest management and plant health products, targeting the major markets that use conventional chemical pesticides, including certain agricultural and water markets where our bio-based products are used as alternatives for, or mixed with, conventional chemical pesticides. We also target new markets for which (i) there are no available conventional chemical pesticides or (ii) the use of conventional chemical pesticides may not be desirable or permissible either because of health and environmental concerns (including for organically certified crops) or because the development of pest resistance has reduced the efficacy of conventional chemical pesticides. We deliver EPA-approved and registered biopesticide products and other bio-based products that address the global demand for effective, safe and environmentally responsible products.

We currently primarily sell our products to the crop protection market. Our commercially available crop protection product lines are Regalia, for plant disease control and plant health, Grandevo and Venerate, for insect and mite control and Majestene for nematode control. We sell our crop protection products to leading agrichemical distributors while also working directly with growers to increase existing and generate new product demand. In March 2016, we also entered into an agreement with Isagro USA to distribute Bio-Tam 2.0 for soil-borne disease control and grapevine trunk disease control, which complements our existing products, particularly Regalia. In addition, we have developed a commercially available water treatment product, Zequanox, which selectively controls invasive mussels that cause significant infrastructure and ecological damage across a broad range of in-pipe and open-water applications, including hydroelectric and thermoelectric power generation, industrial applications and recreation.

Our corporate headquarters are located at 1540 Drew Avenue in Davis, California 95618. Our telephone number is (530) 750-2800 and our website address is www.marronebioinnovations.com. The information on or accessible

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through our website does not constitute part of this prospectus or any accompanying prospectus supplement and should not be relied upon in connection with making any investment in our securities. We make our annual reports on Form 10-K, quarterly reports on Form 10-Q, current reports on Form 8-K, and amendments to these reports available free of charge on our website as soon as reasonably practicable after we file these reports with the Securities and Exchange Commission. Our Code of Business Conduct and Ethics can be found on our website.

Securities We Are Offering

We may offer shares of common stock, shares of preferred stock, debt securities, warrants, rights to purchase such securities, either individually or in units, with a total value of up to \$50,000,000 from time to time under this prospectus at prices and on terms to be determined by market conditions at the time of the offering. Our common stock currently is quoted on the Nasdaq Capital Market under the symbol “MBII.” Shares of common stock that may be offered in this offering will, when issued and paid for, be fully paid and non-assessable.

We refer to our common stock, preferred stock, debt securities, warrants, rights and units in this prospectus as “securities.” This prospectus provides you with a general description of the securities we may offer. Each time we offer a type or series of securities, we will provide a prospectus supplement that will describe the specific amounts, prices and other important terms of the securities, as described below under “Plan of Distribution.”

RISK FACTORS

Before you invest in our securities, in addition to the other information, documents or reports incorporated by reference in this prospectus and any prospectus supplement or other offering materials, you should carefully consider the risk factors in this section, the section entitled “Risk Factors” in any prospectus supplement as well as our most recent Annual Report on Form 10-K, and in our Quarterly Reports on Form 10-Q filed subsequent to the Annual Report on Form 10-K, which are incorporated by reference into this prospectus and any prospectus supplement in their entirety, as the same may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. Each of the risks described in these sections and documents could materially and adversely affect our business, financial condition, results of operations and prospects, and could result in a partial or complete loss of your investment.

CAUTIONARY NOTE REGARDING FORWARD LOOKING INFORMATION

This prospectus and the documents we incorporate by reference in this prospectus contain forward-looking statements. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. We may, in some cases, use words such as “believe,” “anticipate,” “should,” “intend,” “plan,” “will,” “estimate,” “project,” “expect” and similar expressions, although not all forward-looking statements contain these identifying words. These statements are based on assumptions and assessments made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of risks and uncertainties, including those risks described or incorporated by reference in this prospectus under “Risk Factors” above.

Forward-looking statements included or incorporated by reference in this prospectus include, for example, statements about: our plans to target our existing products or product variations for new markets and for new uses and applications; our plans and expectations with respect to growth in sales of our product lines and with respect to Bio-Tam 2.0; our ability and plans to develop, register and commercialize additional new product candidates and bring new products to market across multiple categories faster and at a lower cost than other developers of

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pest management products, including research, development and field trial plans; our expectations regarding registering new products and new formulations and expanded use labels for existing products, including submitting new products to the EPA; our belief that challenges facing the use of conventional chemical pesticides will continue to grow; our beliefs regarding the growth of markets for, and unmet demand for, bio-based products; our beliefs regarding market adoption of our products and our ability to compete in our target markets; our intention to maintain existing, and develop new, supply, sales and distribution channels and extend market access; expectations regarding potential future payments under strategic collaboration and development agreements; our plans and expectations relating to our debt agreements; our plans to grow our business while improving efficiency, including by focusing on a limited number of product candidates, taking measures to reduce expenses and expanding our sales and marketing team; our plans with respect to manufacturing; our plans to seek third-party collaborations to develop and commercialize more early stage product candidates; our intention to continue to devote significant resources toward our proprietary technology and research and development; our expectations that sales will be seasonal and the impact of continued drought and other weather-related conditions; our ability to protect our intellectual property in the United States and abroad; our beliefs regarding the effects of the outcome of certain legal matters; our anticipated impact of certain accounting pronouncements; our ability to use carryforwards; our expectations regarding market risk, including interest rate changes, foreign currency fluctuations and commodity price changes; and our future financial and operating results.

Any such forward-looking statements are not guarantees of future performance and actual results, developments and business decisions may differ from those contemplated by such forward-looking statements. We disclaim any duty to update any forward-looking statements. You should also carefully consider other information set forth in reports or other documents that we file with the Commission.

USE OF PROCEEDS

Unless otherwise indicated in a prospectus supplement, the net proceeds from the sale of securities offered by this prospectus will be used for general corporate purposes, which may include operating expenses, working capital to improve and promote our commercially available products, advance product candidates, expand international presence and commercialization, general capital expenditures and satisfaction of debt obligations.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of our future revenues and our future expenses. Pending any use, as described above, we may invest the net proceeds in a variety of capital preservation instruments, including short- and long-term interest-bearing investments, direct or guaranteed obligations of the U.S. government, certificates of deposit and money market funds. We cannot predict whether the proceeds invested will yield a favorable return for us.

DESCRIPTION OF CAPITAL STOCK

The following description of our common stock and preferred stock, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the common stock and preferred stock that we may offer under this prospectus. It may not contain all the information that is important to you. For the complete terms of our common stock and preferred stock, please refer to our amended and restated certificate of incorporation and our amended and restated bylaws, which are incorporated by reference into the registration statement which includes this prospectus. The Delaware General Corporation Law (“DGCL”) may also affect the terms of these securities. While the terms we have summarized below will apply generally to any future common stock and preferred stock that we may offer, we will describe the particular terms of these securities in more detail in the applicable prospectus supplement. If we so indicate in a prospectus supplement, the terms of any security we offer under that prospectus supplement may differ from the terms we describe below.

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Our amended and restated certificate of incorporation provides for one class of common stock. In addition, our amended and restated certificate of incorporation authorizes shares of undesignated preferred stock, the rights, preferences and privileges of which may be designated from time to time by our board of directors.

Our authorized capital stock consists of 270,000,000 shares, all with a par value of \$0.00001 per share, of which:

- 250,000,000 shares are designated as common stock; and
- 20,000,000 shares are designated as preferred stock.

Common Stock

As of September 30, 2016 we had outstanding 24,658,302 shares of common stock, held by 70 stockholders of record. As of September 30, 2016 we also had outstanding options to acquire 3,056,185 shares of our common stock with a weighted average exercise price of \$6.00 per share as well as restricted stock units outstanding for the issuance of an aggregate of 415,161 shares upon settlement held by current and former employees, directors and consultants. In addition, as of September 30, 2016 there were warrants outstanding for the purchase of an aggregate of 4,026,788 shares of common stock with a weighted average exercise price of \$1.95 per share.

Voting Rights . Under our amended and restated certificate of incorporation, each share of common stock entitles the holder to one vote with respect to each matter presented to our stockholders on which the holders of common stock are entitled to vote. Subject to any rights that may be applicable to any then outstanding preferred stock, our common stock votes as a single class on all matters relating to the election and removal of directors on our board of directors and as provided by law. Holders of our common stock do not have cumulative voting rights. Except in respect of matters relating to the election and removal of directors on our board of directors and as otherwise provided in our amended and restated certificate of incorporation or required by law, all matters to be voted on by our stockholders must be approved by a majority of the shares present in person or by proxy at the meeting and entitled to vote on the subject matter. In the case of election of directors, all matters to be voted on by our stockholders must be approved by a plurality of the votes entitled to be cast by all shares of common stock.

Dividends . Subject to preferences that may apply to any shares of preferred stock outstanding at the time, the holders of our common stock will be entitled to share equally, identically and ratably in any dividends that our board of directors may determine to issue from time to time. We have never paid cash dividends on our common stock. We do not anticipate paying periodic cash dividends on our common stock for the foreseeable future. Any future determination about the payment of dividends will be made at the discretion of our board of directors and will depend upon our earnings, if any, capital requirements, operating and financial conditions and on such other factors as the board of directors deems relevant.

Liquidation Rights . In the event of any voluntary or involuntary liquidation, dissolution or winding up of our affairs, holders of our common stock would be entitled to share ratably in our assets that are legally available for distribution to stockholders after payment of our debts and other liabilities. If we have any preferred stock outstanding at such time, holders of the preferred stock may be entitled to distribution and/or liquidation preferences. In either such case, we must pay the applicable distribution to the holders of our preferred stock before we may pay distributions to the holders of our common stock.

Other Rights . Our stockholders have no preemptive, conversion or other rights to subscribe for additional shares. All outstanding shares are, and all shares offered by this prospectus will be, when sold, validly issued, fully paid and nonassessable. The rights, preferences and privileges of the holders of our common stock will be subject to, and may be adversely affected by, the rights of the holders of shares of any series of our preferred stock that we may designate and issue in the future.

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Listing. Our common stock is listed on the Nasdaq Capital Market under the symbol “MBII.”

Transfer Agent and Registrar. The transfer agent for our common stock is American Stock Transfer & Trust Company, LLC. Its address is 6201 15th Avenue, Brooklyn, NY 11219.

Preferred Stock

Under our amended and restated certificate of incorporation, we have authority, subject to any limitations prescribed by law and without further stockholder approval, to issue from time to time up to 20,000,000 shares of preferred stock, par value \$0.00001 per share, in one or more series. As of September 30, 2016, no shares of preferred stock were issued and outstanding.

Pursuant to our amended and restated certificate of incorporation, we are authorized to issue “blank check” preferred stock, which may be issued from time to time in one or more series upon authorization by our board of directors. Our board of directors, without further approval of the stockholders, is authorized to fix the designations, preferences and relative, participating, optional or other special rights, and qualifications, limitations or restrictions applicable to each series of the preferred stock. The issuance of preferred stock, while providing flexibility in connection with capital raising and other corporate purposes could, among other things, adversely affect the voting power or rights of the holders of our common stock and, under certain circumstances, make it more difficult for a third party to gain control of us, discourage bids for our common stock at a premium or otherwise adversely affect the market price of the common stock.

The preferred stock will have the terms described below unless otherwise provided in the prospectus supplement relating to a particular series of the preferred stock. You should read the prospectus supplement relating to the particular series of the preferred stock being offered for specific terms, including:

- the designation and stated value per share of the preferred stock and the number of shares offered;
- the amount of liquidation preference per share;
- the price at which the preferred stock will be issued;
- the dividend rate, or method of calculation of any dividend, the dates on which dividends will be payable, whether dividends will be cumulative or noncumulative and, if cumulative, the dates from which dividends will accumulate;
- any redemption or sinking fund provisions;
- if other than the currency of the United States, the currency or currencies, including composite currencies, in which the preferred stock is denominated and/or in which payments will or may be payable;
- any conversion provisions; and
- any other rights, preferences, privileges, qualifications, limitations and restrictions on the preferred stock.

The preferred stock will, when issued, be duly authorized, fully paid and nonassessable. Unless otherwise specified in the prospectus supplement, each series of the preferred stock will rank equally as to dividends and liquidation rights in all respects with any other series of preferred stock. The rights of holders of shares of each series of preferred stock will be subordinate to those of our general creditors.

Rank. Unless otherwise specified in the prospectus supplement, the preferred stock will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up of our affairs, rank:

- senior to all classes or series of our common stock and to all equity securities ranking junior to such preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs;

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- on a parity with all equity securities issued by us, the terms of which specifically provide that such equity securities rank on a parity with the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs; and
- junior to all equity securities issued by us, the terms of which specifically provide that such equity securities rank senior to the preferred stock with respect to dividend rights or rights upon our liquidation, dissolution or winding up of our affairs.

The term “equity securities” does not include convertible debt securities.

Dividends. Holders of the preferred stock of each series will be entitled to receive, when, as and if declared by our board of directors, cash dividends at such rates and on such dates described in the prospectus supplement. Different series of preferred stock may be entitled to dividends at different rates or based on different methods of calculation. The dividend rate may be fixed or variable or both. Dividends will be payable to the holders of record as they appear on our stock books on record dates fixed by our board of directors, as specified in the applicable prospectus supplement.

Dividends on any series of the preferred stock may be cumulative or noncumulative, as described in the applicable prospectus supplement. If our board of directors does not declare a dividend payable on a dividend payment date on any series of noncumulative preferred stock, then the holders of that noncumulative preferred stock will have no right to receive a dividend for that dividend payment date, and we will have no obligation to pay the dividend accrued for that period, whether or not dividends on that series are declared payable on any future dividend payment dates. Dividends on any series of cumulative preferred stock will accrue from the date we initially issue shares of such series or such other date specified in the applicable prospectus supplement.

Liquidation Preference. Upon any voluntary or involuntary liquidation, dissolution or winding up of our affairs, before we make any distribution or payment to the holders of any common stock or any other class or series of our capital stock ranking junior to the preferred stock in the distribution of assets upon any liquidation, dissolution or winding up of our affairs, the holders of each series of preferred stock shall be entitled to receive out of assets legally available for distribution to stockholders, liquidating distributions in the amount of the liquidation preference per share set forth in the applicable prospectus supplement, plus any accrued and unpaid dividends thereon. Such dividends will not include any accumulation in respect of unpaid noncumulative dividends for prior dividend periods. Unless otherwise specified in the prospectus supplement, after payment of the full amount of their liquidating distributions, the holders of preferred stock will have no right or claim to any of our remaining assets. Upon any such voluntary or involuntary liquidation, dissolution or winding up, if our available assets are insufficient to pay the amount of the liquidating distributions on all outstanding preferred stock and the corresponding amounts payable on all other classes or series of our capital stock ranking on parity with the preferred stock and all other such classes or series of shares of capital stock ranking on parity with the preferred stock in the distribution of assets, then the holders of the preferred stock and all other such classes or series of capital stock will share ratably in any such distribution of assets in proportion to the full liquidating distributions to which they would otherwise be entitled.

Redemption. If so provided in the applicable prospectus supplement, the preferred stock will be subject to mandatory redemption or redemption at our option, as a whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in such prospectus supplement.

Voting Rights. Except as otherwise required by law, or as otherwise fixed by resolution or resolutions of the board of directors with respect to one or more series of preferred stock and indicated in the applicable prospectus supplement, the entire voting power and all voting rights shall be vested exclusively in the common stock.

Conversion Rights. The terms and conditions, if any, upon which any series of preferred stock is convertible into common stock will be set forth in the applicable prospectus supplement relating thereto. Such terms will include

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the number of shares of common stock into which the shares of preferred stock are convertible, the conversion price, rate or manner of calculation thereof, the conversion period, provisions as to whether conversion will be at our option or at the option of the holders of the preferred stock, the events requiring an adjustment of the conversion price and provisions affecting conversion in the event of the redemption.

Transfer Agent and Registrar. Any transfer agent and registrar for the preferred stock will be set forth in the applicable prospectus supplement.

Certain Effects of Authorized but Unissued Stock

We have shares of common stock and preferred stock available for future issuance without stockholder approval. We may issue these additional shares for a variety of corporate purposes, including future public or private offerings to raise additional capital or to facilitate corporate acquisitions or for payment as a dividend on our capital stock. The existence of unissued and unreserved preferred stock may enable our board of directors to issue shares of preferred stock with terms that could render more difficult or discourage a third-party attempt to obtain control of us by means of a merger, tender offer, proxy contest or otherwise, thereby protecting the continuity of our management. In addition, if we issue preferred stock, the issuance could adversely affect the voting power of holders of common stock and the likelihood that holders of common stock will receive dividend payments or payments upon liquidation.

ADDITIONAL INFORMATION CONCERNING OUR CAPITAL STOCK

Anti-Takeover Effects of Provisions of Our Charter Documents

Our amended and restated certificate of incorporation provides for our board of directors to be divided into three classes with staggered three-year terms. Only one class of directors will be elected at each annual meeting of our stockholders, with the other classes continuing for the remainder of their respective three-year terms. Because our stockholders do not have cumulative voting rights, our stockholders holding a majority of the shares of common stock outstanding will be able to elect all of our directors. Our amended and restated certificate of incorporation and amended and restated bylaws provide that all stockholder actions must be effected at a duly called meeting of stockholders and not by a consent in writing, and that only our board of directors, chairman of the board, chief executive officer or president (in the absence of a chief executive officer) may call a special meeting of stockholders.

Our amended and restated certificate of incorporation and amended and restated bylaws require a 66 2/3% stockholder vote for the removal of a director without cause or the rescission, alteration, amendment or repeal of the bylaws by stockholders, and our amended and restated bylaws require an 80% stockholder vote to amend the provisions of our bylaws relating to the election and classification of directors. The combination of the classification of our board of directors, the lack of cumulative voting and the 66 2/3% and 80% stockholder voting requirements will make it more difficult for our existing stockholders to replace our board of directors as well as for another party to obtain control of us by replacing our board of directors. Since our board of directors has the power to retain and discharge our officers, these provisions could also make it more difficult for existing stockholders or another party to effect a change in management. In addition, the authorization of undesignated preferred stock makes it possible for our board of directors to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to change our control.

Our amended and restated bylaws establish an advance notice procedure for stockholder proposals to be brought before an annual stockholders meeting, including proposed nominations of persons for election to our board of directors. At an annual stockholders meeting, stockholders may only consider proposals or nominations specified in the notice of meeting or otherwise properly brought before the meeting by our board of directors. Stockholders may also consider a proposal or nomination by a person who was a stockholder of record on the record date for the meeting, who is entitled to vote at the meeting and who has given to the Secretary of the Company timely

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written notice, in proper form, of his or her intention to bring that business before the annual stockholders meeting. The amended and restated bylaws do not give our board of directors the power to approve or disapprove stockholder nominations of candidates or proposals regarding other business to be conducted at a special or annual meeting of the stockholders. However our amended and restated bylaws may have the effect of precluding the conduct of business at a meeting if the proper procedures are not followed.

Our amended and restated bylaws also provide that only our board of directors, the chairperson of the board or the President may call a special meeting of stockholders. Because our stockholders do not have the right to call a special meeting, a stockholder could not force stockholder consideration of a proposal over the opposition of our board of directors by calling a special meeting of stockholders prior to such time as a majority of our board of directors, the chairperson of the board or the President believed the matter should be considered or until the next annual meeting provided that the requestor met the notice requirements. The restriction on the ability of stockholders to call a special meeting means that a proposal to replace the board also could be delayed until the next annual stockholders meeting.

These provisions may have the effect of deterring hostile takeovers or delaying changes in our control or management. These provisions are intended to enhance the likelihood of continued stability in the composition of our board of directors and its policies and to discourage certain types of transactions that may involve an actual or threatened acquisition of us. These provisions are designed to reduce our vulnerability to an unsolicited acquisition proposal. The provisions also are intended to discourage certain tactics that may be used in proxy fights. However, such provisions could have the effect of discouraging others from making tender offers for our shares and, as a consequence, they also may inhibit fluctuations in the market price of our stock that could result from actual or rumored takeover attempts.

Anti-Takeover Effects of Provisions of Delaware Law

We are subject to Section 203 of the DGCL, which prohibits a Delaware corporation from engaging in any business combination with any interested stockholder for a period of three years after the date that such stockholder became an interested stockholder, with the following exceptions:

- before such date, the board of directors of the corporation approved either the business combination or the transaction that resulted in the stockholder becoming an interested stockholder;
- upon completion of the transaction that resulted in the stockholder becoming an interested stockholder, the interested stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction began, excluding for purposes of determining the voting stock outstanding (but not the outstanding voting stock owned by the interested stockholder) those shares owned (i) by persons who are directors and also officers and (ii) employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or after such date, the business combination is approved by the board of directors and authorized at an annual or special meeting of the stockholders, and not by written consent, by the affirmative vote of at least 66 2/3% of the outstanding voting stock that is not owned by the interested stockholder.

In general, Section 203 defines business combination to include the following:

- any merger or consolidation involving the corporation and the interested stockholder;
- any sale, transfer, pledge or other disposition of 10% or more of the assets of the corporation involving the interested stockholder;
- subject to certain exceptions, any transaction that results in the issuance or transfer by the corporation of any stock of the corporation to the interested stockholder;
- any transaction involving the corporation that has the effect of increasing the proportionate share of the stock or any class or series of the corporation beneficially owned by the interested stockholder; or
- the receipt by the interested stockholder of the benefit of any loans, advances, guarantees, pledges or other financial benefits by or through the corporation.

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In general, Section 203 defines an “interested stockholder” as an entity or person who, together with the person’s affiliates and associates, beneficially owns, or within three years prior to the time of determination of interested stockholder status did own, 15% or more of the outstanding voting stock of the corporation.

Limitation of Liability and Indemnification

We have adopted provisions in our certificate of incorporation that limit or eliminate the liability of our directors for monetary damages for breach of their fiduciary duties, except for liability that cannot be eliminated under the DGCL. Section 102(b)(7) of the DGCL, provides that a corporation may, in its original certificate of incorporation or an amendment thereto, eliminate or limit the personal liability of a director for violations of the director’s fiduciary duty, except (1) for any breach of the director’s duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) pursuant to Section 174 of the DGCL, which provides for liability of directors for unlawful payments of dividends or unlawful stock purchases or redemptions or (4) for any transaction from which a director derived an improper personal benefit. Accordingly, our directors will not be personally liable for monetary damages for breach of their fiduciary duties as directors, except with respect to the following:

- any breach of their duty of loyalty to us or our stockholders;
- acts or omissions not in good faith or that involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL; or
- any transaction from which the director derived an improper personal benefit.

This limitation of liability does not apply to liabilities arising under the federal securities laws and does not affect the availability of equitable remedies such as injunctive relief or rescission. If Delaware law is amended to authorize the further elimination or limiting of director liability, then the liability of our directors will be eliminated or limited to the fullest extent permitted by Delaware law as so amended.

Section 145 of the DGCL provides that a corporation may indemnify any person, including an officer or director, who is, or is threatened to be made, party to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of such corporation, by reason of the fact that such person was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys’ fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the corporation’s best interest and, for criminal proceedings, had no reasonable cause to believe that his conduct was unlawful. A Delaware corporation may indemnify any officer or director in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses that such officer or director actually and reasonably incurred.

Our certificate of incorporation and our bylaws provide that we shall indemnify our directors and executive officers and shall indemnify our other officers and employees and other agents to the fullest extent permitted by law. We believe that indemnification under our bylaws covers at least negligence and gross negligence on the part of indemnified parties. Our bylaws also permit us to secure insurance on behalf of any officer, director, employee or other agent for any liability arising out of his or her actions in this capacity, regardless of whether our bylaws would permit indemnification.

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In addition, we have entered and intend to continue to enter into separate indemnification agreements with certain of our directors and executive officers that are, in some cases, broader than the specific indemnification provisions provided by Delaware law and our charter documents, and may provide additional procedural protection. These agreements will require us, among other things, to:

- indemnify officers and directors against certain liabilities that may arise because of their status as officers and directors;
- advance expenses, as incurred, to officers and directors in connection with a legal proceeding subject to limited exceptions; and
- cover officers and directors under any general or directors' and officers' liability insurance policy maintained by us.

We believe that these provisions and agreements are necessary to attract and retain qualified persons as directors and executive officers. Insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers or persons controlling our company pursuant to the foregoing provisions, the opinion of the Securities and Exchange Commission is that such indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

In addition, we maintain standard policies of insurance under which coverage is provided to our directors and officers against loss arising from claims made by reason of breach of duty or other wrongful act, and to us with respect to payments which may be made by us to such directors and officers pursuant to the above indemnification provisions or otherwise as a matter of law. We also make available standard life insurance and accidental death and disability insurance policies to our employees.

DESCRIPTION OF DEBT SECURITIES

The following description, together with the additional information we include in any applicable prospectus supplements, summarizes the material terms and provisions of the debt securities that we may offer under this prospectus. While the terms we have summarized below will apply generally to any future debt securities we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer in more detail in the applicable prospectus supplement. The terms of any debt securities we offer under a prospectus supplement may differ from the terms we describe below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements does not purport to be complete and is subject to, and qualified in its entirety by reference to, all the provisions of the indenture, any indenture supplement and the terms of the debt securities, including, in each case, the definitions therein of certain terms. We will file each of these documents, as applicable, with the SEC and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of debt securities. See "Where You Can Find More Information" and "Incorporation of Certain Documents by Reference" below for information on how to obtain a copy of a document when it is filed. The specific terms of the debt securities as described in a prospectus supplement, information incorporated by reference, or free writing prospectus will supplement and, if applicable, may modify or replace the general terms described in this section.

The indentures will be qualified under the Trust Indenture Act of 1939, as amended. We use the term "debenture trustee" to refer to either the trustee under the senior indenture or the trustee under the subordinated indenture, as applicable.

The following summaries of material provisions of the senior debt securities, the subordinated debt securities and the indentures are subject to, and qualified in their entirety by reference to, all the provisions of the indenture applicable to a particular series of debt securities. We urge you to read the applicable prospectus supplements related to the debt securities that we sell under this prospectus, as well as the indenture that would contain the terms of the debt securities. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture would be identical.

General

We will describe in each prospectus supplement the following terms relating to a series of debt securities:

- the title;
- the principal amount being offered, and if a series, the total amount authorized and the total amount outstanding;
- any limit on the amount that may be issued;
- whether or not we will issue the series of debt securities in global form, the terms and who the depositary will be;
- the maturity date;
- whether and under what circumstances, if any, we will pay additional amounts on any debt securities held by a person who is not a U.S. person for tax purposes, and whether we can redeem the debt securities if we have to pay such additional amounts;
- the annual interest rate, which may be fixed or variable, or the method for determining the rate and the date interest will begin to accrue, the dates interest will be payable and the regular record dates for interest payment dates or the method for determining such dates;
- whether or not the debt securities will be secured or unsecured, and the terms of any secured debt;
- the terms of the subordination of any series of subordinated debt;
- the place where payments will be payable;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;
- the date, if any, after which, and the price at which, we may, at our option, redeem the series of debt securities pursuant to any optional or provisional redemption provisions and the terms of those redemptions provisions;
- the date, if any, on which, and the price at which we are obligated, pursuant to any mandatory sinking fund or analogous fund provisions or otherwise, to redeem, or at the holder's option to purchase, the series of debt securities and the currency or currency unit in which the debt securities are payable;
- whether the indenture will restrict our ability and/or the ability of our subsidiaries to:
 - incur additional indebtedness;
 - issue additional securities;
 - create liens;
 - pay dividends and make distributions in respect of our capital stock and the capital stock of our subsidiaries;
 - redeem capital stock;
 - place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - make investments or other restricted payments;
 - sell or otherwise dispose of assets;
 - enter into sale-leaseback transactions;
 - engage in transactions with stockholders and affiliates;
 - issue or sell stock of our subsidiaries; or

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- effect a consolidation or merger;
- whether the indenture will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of any material or special U.S. federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- provisions for a sinking fund purchase or other analogous fund, if any;
- whether the debt securities are to be offered at a price such that they will be deemed to be offered at an “original issue discount” as defined in paragraph (a) of Section 1273 of the Internal Revenue Code;
- the denominations in which we will issue the series of debt securities, if other than denominations of \$1,000 and any integral multiple thereof; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any additional events of default or covenants provided with respect to the debt securities, and any terms that may be required by us or advisable under applicable laws or regulations.

Conversion or Exchange Rights

We will set forth in the prospectus supplement the terms on which a series of debt securities may be convertible into or exchangeable for our common stock or our other securities. We will include provisions as to whether conversion or exchange is mandatory, at the option of the holder or at our option. We may include provisions pursuant to which the number of shares of our common stock or our other securities that the holders of the series of debt securities receive would be subject to adjustment.

Consolidation, Merger or Sale

Any successor to or acquiror of the indentures must assume all of our obligations under the indentures or the debt securities, as appropriate. If the debt securities are convertible for our other securities or securities of other entities, the person with whom we consolidate or merge or to whom we sell all of our property must make provisions for the conversion of the debt securities into securities that the holders of the debt securities would have received if they had converted the debt securities before the consolidation, merger or sale.

Events of Default Under the Indenture

Unless otherwise provided in any applicable prospectus supplement, documents incorporated by reference or free writing prospectus, the following will be events of default under the indenture with respect to each series of debt securities issued thereunder:

- (a) if we fail to pay interest when due and payable and our failure continues for 30 days, or within such other time period as may be specified in the applicable indenture, and the time for payment has not been extended or deferred;
- (b) if we fail to pay the principal, premium or sinking fund payment, if any, when due and payable and the time for payment has not been extended or delayed;
- (c) if specified events of bankruptcy, insolvency or reorganization occur; and
- (d) if we fail to observe or perform any other covenant contained in the debt securities or the indentures, other than a covenant specifically relating to another series of debt securities, and our failure continues for 60 days, or within such other time period as may be specified in the applicable indenture, after we receive notice from the debenture trustee or holders of at least a majority in principal amount of the

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outstanding debt securities of an affected series, or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of the applicable series.

If an event of default with respect to debt securities of any series occurs and is continuing, other than an event of default specified in the last bullet point above, the debenture trustee or the holders of at least 25%, or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of that series, by notice to us in writing, and to the debenture trustee if notice is given by such holders, may declare the unpaid principal of, premium, if any, and accrued interest, if any, due and payable immediately. If an event of default specified in the last bullet point above occurs with respect to us, the principal amount of and accrued interest, if any, of each issue of debt securities then outstanding shall be due and payable without any notice or other action on the part of the debenture trustee or any holder.

The holders of a majority in principal amount of the outstanding debt securities of an affected series may waive any default or event of default with respect to the series and its consequences, except defaults or events of default regarding payment of principal, premium, if any, or interest, unless we have cured the default or event of default in accordance with the indenture. Any waiver shall cure the default or event of default.

Subject to the terms of the indentures, if an event of default under an indenture shall occur and be continuing, the debenture trustee will be under no obligation to exercise any of its rights or powers under such indenture at the request or direction of any of the holders of the applicable series of debt securities, unless such holders have offered the debenture trustee reasonable indemnity. The holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the debenture trustee, or exercising any trust or power conferred on the debenture trustee, with respect to the debt securities of that series, provided that:

- the direction so given by the holder is not in conflict with any law or the applicable indenture; and
- subject to its duties under the Trust Indenture Act of 1939, the debenture trustee need not take any action that might involve it in personal liability or might be unduly prejudicial to the holders not involved in the proceeding.

A holder of the debt securities of any series will only have the right to institute a proceeding under the indentures or to appoint a receiver or trustee, or to seek other remedies if:

- the holder has given written notice to the debenture trustee of a continuing event of default with respect to that series;
- the holders of at least 25% (or, in the case of a default of the type described under subsection (d), above, a majority in principal amount of the outstanding debt securities of an affected series), or such other percentage as may be specified in the applicable indenture, in aggregate principal amount of the outstanding debt securities of that series have made written request, and such holders have offered reasonable indemnity to the debenture trustee to institute the proceeding as trustee; and
- the debenture trustee does not institute the proceeding, and does not receive from the holders of a majority in aggregate principal amount of the outstanding debt securities of that series other conflicting directions within 60 days, or within such other time period as may be specified in the applicable indenture, after the notice, request and offer of indemnity.

These limitations do not apply to a suit instituted by a holder of debt securities if we default in the payment of the principal, premium, if any, or interest on, the debt securities.

We will periodically file statements with the debenture trustee regarding our compliance with specified covenants in the indentures.

Modification of Indenture; Waiver

We and the debenture trustee may change an indenture without the consent of any holders with respect to specific matters:

- to evidence the succession of another corporation to us and the assumption by any such successor of our covenants in such indenture and in the debt securities issued thereunder;
- to add to our covenants or to surrender any right or power conferred on us pursuant to the indenture;
- to establish the form and terms of debt securities issued thereunder;
- to evidence and provide for a successor trustee under such indenture with respect to one or more series of debt securities issued thereunder or to provide for or facilitate the administration of the trusts under such indenture by more than one trustee;
- to cure any ambiguity, to correct or supplement any provision in the indenture that may be defective or inconsistent with any other provision of the indenture or to make any other provisions with respect to matters or questions arising under such indenture; provided that no such action adversely affects the interests of the holders of any series of debt securities issued thereunder in any material respect;
- to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issue, authentication and delivery of securities under the indenture;
- to add any additional events of default with respect to all or any series of debt securities;
- to supplement any of the provisions of the indenture as may be necessary to permit or facilitate the defeasance and discharge of any series of debt securities, provided that such action does not adversely affect the interests of any holder of an outstanding debt security of such series or any other security in any material respect;
- to make provisions with respect to the conversion or exchange rights of holders of debt securities of any series;
- to pledge to the trustee as security for the debt securities of any series any property or assets;
- to add guarantees in respect of the debt securities of one or more series;
- to change or eliminate any of the provisions of the indenture, provided that any such change or elimination becomes effective only when there is no security of any series outstanding created prior to the execution of such supplemental indenture which is entitled to the benefit of such provision;
- to provide for certificated securities in addition to or in place of global securities;
- to qualify such indenture under the Trust Indenture Act of 1939, as amended;
- with respect to the debt securities of any series, to conform the text of the indenture or the debt securities of such series to any provision of the description thereof in our offering memorandum or prospectus relating to the initial offering of such debt securities, to the extent that such provision, in our good faith judgment, was intended to be a verbatim recitation of a provision of the indenture or such securities; or
- to make any other change that does not adversely affect the rights of holders of any series of debt securities issued thereunder in any material respect.

In addition, under the indentures, the rights of holders of a series of debt securities may be changed by us and the debenture trustee with the written consent of the holders of at least a majority in aggregate principal amount of

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the outstanding debt securities of each series that is affected. However, we and the debenture trustee may only make the following changes with the consent of each holder of any outstanding debt securities affected:

- extending the fixed maturity of the series of debt securities; or
- reducing the principal amount, reducing the rate of or extending the time of payment of interest, or reducing any premium payable upon the redemption of any debt securities; or
- reducing the percentage of debt securities, the holders of which are required to consent to any amendment, supplement, modification or waiver; or
- make any change that adversely affects the right to convert or exchange any security into or for common stock or other securities, cash or other property in accordance with the terms of the applicable debt security.

Each indenture provides that we can elect to be discharged from our obligations with respect to one or more series of debt securities, except for specified obligations, including obligations to:

- register the transfer or exchange of debt securities of the series;
- replace stolen, lost or mutilated debt securities of the series;
- maintain paying agencies;
- hold monies for payment in trust;
- recover excess money held by the debenture trustee;
- compensate and indemnify the debenture trustee; and
- appoint any successor trustee.

In order to exercise our rights to be discharged, we must deposit with the debenture trustee money or government obligations sufficient to pay all the principal of, any premium, if any, and interest on, the debt securities of the series on the dates payments are due.

Form, Exchange and Transfer

We will issue the debt securities of each series only in fully registered form without coupons and, unless we otherwise specify in the applicable prospectus supplement, in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, the American Stock Transfer & Trust Company, LLC or another depository named by us and identified in a prospectus supplement with respect to that series. See “Legal Ownership of Securities” for a further description of the terms relating to any book-entry securities.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional

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transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer of, or exchange any debt securities of that series during a period beginning at the opening of business 15 days, or within such other time period as may be specified in the applicable indenture, before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Repurchases on the Open Market

We, or an affiliate of ours, may at any time or from time to time repurchase any debt security in the open market or otherwise. Such debt securities may, at our option (or our affiliate's option), be held, resold or surrendered to the trustee for cancellation.

Information Concerning the Debenture Trustee

The debenture trustee, other than during the occurrence and continuance of an event of default under an indenture, undertakes to perform only those duties as are specifically set forth in the applicable indenture. Upon an event of default under an indenture, the debenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. Subject to this provision, the debenture trustee is under no obligation to exercise any of the powers given him or her by the indentures at the request of any holder of debt securities unless he or she is offered reasonable security and indemnity against the costs, expenses and liabilities that he or she might incur.

Payment and Paying Agents

Unless we otherwise indicate in the applicable prospectus supplement, we will make payment of the interest on any debt securities on any interest payment date to the person in whose name the debt securities, or one or more predecessor securities, are registered at the close of business on the regular record date for the interest.

We will pay principal of and any premium and interest on the debt securities of a particular series at the office of the paying agents designated by us, except that unless we otherwise indicate in the applicable prospectus supplement, we will make interest payments by check that we will mail to the holder or by wire transfer to certain holders. Unless we otherwise indicate in a prospectus supplement, we will designate the corporate trust office of the debenture trustee in the City of New York as our sole paying agent for payments with respect to debt securities of each series. We will name in the applicable prospectus supplement any other paying agents that we initially designate for the debt securities of a particular series. We will maintain a paying agent in each place of payment for the debt securities of a particular series.

All money we pay to a paying agent or the debenture trustee for the payment of the principal of or any premium or interest on any debt securities that remains unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of the debt security thereafter may look only to us for payment thereof.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the State of New York, except to the extent that the Trust Indenture Act of 1939 is applicable.

Subordination of Subordinated Debt Securities

The subordinated debt securities will be unsecured and will be subordinate and junior in priority of payment to certain of our other indebtedness to the extent described in a prospectus supplement. The subordinated indenture does not limit the amount of subordinated debt securities that we may issue. It also does not limit us from issuing any other secured or unsecured debt.

DESCRIPTION OF WARRANTS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the warrants that we may offer under this prospectus and the related warrant agreements and warrant certificates. While the terms summarized below will apply generally to any warrants that we may offer, we will describe the particular terms of any series of warrants in more detail in the applicable prospectus supplement. The terms of any warrants offered under that prospectus supplement may differ from the terms described below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements does not purport to be complete and is subject to, and qualified in its entirety by reference to, the form of warrant agreement and form of warrant certificate relating to each series of warrants that will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a current report on Form 8-K if we offer warrants.

General

We will describe in the applicable prospectus supplement the terms of the series of warrants, including:

- the offering price and aggregate number of warrants offered;
- the currency for which the warrants may be purchased;
- if applicable, the designation and terms of the securities with which the warrants are issued and the number of warrants issued with each such security or each principal amount of such security;
- if applicable, the date on and after which the warrants and the related securities will be separately transferable;
- in the case of warrants to purchase common stock, the number of shares of common stock purchasable upon the exercise of one warrant and the price at which these shares may be purchased upon such exercise;
- the effect of any merger, consolidation, sale or other disposition of our business on the warrant agreements and the warrants;
- the terms of any rights to redeem or call the warrants;
- any provisions for changes to or adjustments in the exercise price or number of securities issuable upon exercise of the warrants;
- the dates on which the right to exercise the warrants will commence and expire;
- the manner in which the warrant agreements and warrants may be modified;
- federal income tax consequences of holding or exercising the warrants;
- the terms of the securities issuable upon exercise of the warrants; and
- any other specific terms, preferences, rights or limitations of or restrictions on the warrants.

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Before exercising their warrants, holders of warrants will not have any of the rights of holders of the securities purchasable upon such exercise, including the right to receive dividends, if any, or, payments upon our liquidation, dissolution or winding up or to exercise voting rights, if any.

Exercise of Warrants

Each warrant will entitle the holder to purchase the securities that we specify in the applicable prospectus supplement at the exercise price that we describe in the applicable prospectus supplement. Unless we otherwise specify in the applicable prospectus supplement, holders of the warrants may exercise the warrants at any time up to 5:00 P.M. Eastern Time on the expiration date that we set forth in the applicable prospectus supplement. After the close of business on the expiration date, unexercised warrants will become void.

Holders of the warrants may exercise the warrants by delivering the warrant certificate representing the warrants to be exercised together with specified information, and paying the required amount to the warrant agent in immediately available funds, as provided in the applicable prospectus supplement. We will set forth on the reverse side of the warrant certificate and in the applicable prospectus supplement the information that the holder of the warrant will be required to deliver to the warrant agent.

Upon receipt of the required payment and the warrant certificate properly completed and duly executed at the corporate trust office of the warrant agent or any other office indicated in the applicable prospectus supplement, we will issue and deliver the securities purchasable upon such exercise. If fewer than all of the warrants represented by the warrant certificate are exercised, then we will issue a new warrant certificate for the remaining amount of warrants. If we so indicate in the applicable prospectus supplement, holders of the warrants may surrender securities as all or part of the exercise price for warrants.

Enforceability of Rights by Holders of Warrants

Any warrant agent will act solely as our agent under the applicable warrant agreement and will not assume any obligation or relationship of agency or trust with any holder of any warrant. A single bank or trust company may act as warrant agent for more than one issue of warrants. A warrant agent will have no duty or responsibility in case of any default by us under the applicable warrant agreement or warrant, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a warrant may, without the consent of the related warrant agent or the holder of any other warrant, enforce by appropriate legal action its right to exercise, and receive the securities purchasable upon exercise of, its warrants.

DESCRIPTION OF RIGHTS

We may issue rights to purchase our debt securities, common stock, preferred stock or other securities. These rights may be issued independently or together with any other security offered hereby and may or may not be transferable by the stockholder receiving the rights in such offering. In connection with any offering of such rights, we may enter into a standby arrangement with one or more underwriters or other purchasers pursuant to which the underwriters or other purchasers may be required to purchase any securities remaining unsubscribed for after such offering.

Each series of rights will be issued under a separate rights agreement which we will enter into with a bank or trust company, as rights agent, all which will be set forth in the relevant offering material. The rights agent will act solely as our agent in connection with the certificates relating to the rights and will not assume any obligation or relationship of agency or trust with any holders of rights certificates or beneficial owners of rights.

The following description is a summary of selected provisions relating to rights that we may offer. The summary is not complete. When rights are offered in the future, a prospectus supplement, information incorporated by reference or a free writing prospectus, as applicable, will explain the particular terms of those securities and the

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extent to which these general provisions may apply. The specific terms of the rights as described in a prospectus supplement, information incorporated by reference, or free writing prospectus will supplement and, if applicable, may modify or replace the general terms described in this section.

This summary and any description of rights in the applicable prospectus supplement, information incorporated by reference or free writing prospectus is subject to and is qualified in its entirety by reference to the rights agreement and the rights certificates. We will file each of these documents, as applicable, with the SEC and incorporate them by reference as an exhibit to the registration statement of which this prospectus is a part on or before the time we issue a series of rights. See “Where You Can Find More Information” and “Incorporation of Certain Documents by Reference” below for information on how to obtain a copy of a document when it is filed.

The applicable prospectus supplement, information incorporated by reference or free writing prospectus may describe:

- in the case of a distribution of rights to our stockholders, the date of determining the stockholders entitled to the rights distribution;
- in the case of a distribution of rights to our stockholders, the number of rights issued or to be issued to each stockholder;
- the exercise price payable for the underlying debt securities, common stock, preferred stock or other securities upon the exercise of the rights;
- the number and terms of the underlying debt securities, common stock, preferred stock or other securities which may be purchased per each right;
- the extent to which the rights are transferable;
- the date on which the holder’s ability to exercise the rights shall commence, and the date on which the rights shall expire;
- the extent to which the rights may include an over-subscription privilege with respect to unsubscribed securities;
- if applicable, the material terms of any standby underwriting or purchase arrangement entered into by us in connection with the offering of such rights; and
- any other terms of the rights, including, but not limited to, the terms, procedures, conditions and limitations relating to the exchange and exercise of the rights.

The provisions described in this section, as well as those described under “Description of Debt Securities” and “Description of Capital Stock” above, will apply, as applicable, to any rights we offer.

DESCRIPTION OF UNITS

The following description, together with the additional information we may include in any applicable prospectus supplements, summarizes the material terms and provisions of the units that we may offer under this prospectus. While the terms we have summarized below will apply generally to any units that we may offer under this prospectus, we will describe the particular terms of any series of units in more detail in the applicable prospectus supplement. The terms of any units offered under a prospectus supplement may differ from the terms described below.

The following summary description, together with the additional information we may include in any applicable prospectus supplements does not purport to be complete and is subject to, and qualified in its entirety by reference to, the form of unit agreement and form of unit certificate relating to each series of units that will be incorporated by reference as an exhibit to the registration statement that includes this prospectus or as an exhibit to a current report on Form 8-K if we offer units.

General

We may issue units comprised of common stock, preferred stock, debt securities, debt obligations of third parties, including U.S. treasury securities, warrants or any combination thereof. Each unit will be issued so that the

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holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date.

We will describe in the applicable prospectus supplement the terms of the series of units, including:

- the designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- any provisions of the governing unit agreement that differ from those described below; and
- any provisions for the issuance, payment, settlement, transfer or exchange of the units or of the securities comprising the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Debt Securities” and “Description of Warrants” will apply to each unit and to any common stock, preferred stock, debt security or warrants included in each unit, respectively.

Issuance in Series

We may issue units in such amounts and in such numerous distinct series as we determine.

Enforceability of Rights by Holders of Units

Any unit agent will act solely as our agent under the applicable unit agreement and will not assume any obligation or relationship of agency or trust with any holder of any unit. A single bank or trust company may act as unit agent for more than one series of units. A unit agent will have no duty or responsibility in case of any default by us under the applicable unit agreement or unit, including any duty or responsibility to initiate any proceedings at law or otherwise, or to make any demand upon us. Any holder of a unit may, without the consent of the related unit agent or the holder of any other unit, enforce by appropriate legal action its rights as holder under any security included in the unit.

Title

We, any unit agents and any of their agents may treat the registered holder of any unit certificate as an absolute owner of the units evidenced by that certificate for any purpose and as the person entitled to exercise the rights attaching to the units so requested, despite any notice to the contrary. See “Legal Ownership of Securities” below.

LEGAL OWNERSHIP OF SECURITIES

We can issue securities in registered form or in the form of one or more global securities. We describe global securities in greater detail below. We refer to those persons who have securities registered in their own names on the books that we or any applicable trustee, depository or warrant agent maintain for this purpose as the “holders” of those securities. These persons are the legal holders of the securities. We refer to those persons who, indirectly through others, own beneficial interests in securities that are not registered in their own names, as “indirect holders” of those securities. As we discuss below, indirect holders are not legal holders, and investors in securities issued in book-entry form or in street name will be indirect holders.

Book-Entry Holders

We may issue securities in book-entry form only, as we will specify in the applicable prospectus supplement. This means securities may be represented by one or more global securities registered in the name of a financial

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institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, which are referred to as participants, in turn, hold beneficial interests in the securities on behalf of themselves or their customers.

Only the person in whose name a security is registered is recognized as the holder of that security. Securities issued in global form will be registered in the name of the depositary or its participants. Consequently, for securities issued in global form, we will recognize only the depositary as the holder of the securities, and we will make all payments on the securities to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the securities.

As a result, investors in a book-entry security will not own securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the securities are issued in global form, investors will be indirect holders, and not holders, of the securities.

Street Name Holders

We may terminate a global security or issue securities in non-global form. In these cases, investors may choose to hold their securities in their own names or in "street name." Securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those securities through an account he or she maintains at that institution.

For securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the securities are registered as the holders of those securities, and we will make all payments on those securities to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold securities in street name will be indirect holders, not holders, of those securities.

Legal Holders

Our obligations, as well as the obligations of any applicable trustee and of any third parties employed by us or a trustee, run only to the legal holders of the securities. We do not have obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect holder of a security or has no choice because we are issuing the securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for the payment or notice even if that holder is required, under agreements with depositary participants or customers or by law, to pass it along to the indirect holders but does not do so. Similarly, we may want to obtain the approval of the holders to amend an indenture, to relieve us of the consequences of a default or of our obligation to comply with a particular provision of the indenture or for other purposes. In such an event, we would seek approval only from the holders, and not the indirect holders, of the securities. Whether and how the holders contact the indirect holders is up to the holders.

Special Considerations for Indirect Holders

If you hold securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

- how it handles securities payments and notices;
- whether it imposes fees or charges;

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- how it would handle a request for the holders' consent, if ever required;
- whether and how you can instruct it to send you securities registered in your own name so you can be a holder, if that is permitted in the future;
- how it would exercise rights under the securities if there were a default or other event triggering the need for holders to act to protect their interests; and
- if the securities are in book-entry form, how the depositary's rules and procedures will affect these matters.

Global Securities

A global security is a security that represents one or any other number of individual securities held by a depositary. Generally, all securities represented by the same global securities will have the same terms.

Each security issued in book-entry form will be represented by a global security that we deposit with and register in the name of a financial institution or its nominee that we select. The financial institution that we select for this purpose is called the depositary. Unless we specify otherwise in the applicable prospectus supplement, American Stock Transfer and Trust Company, LLC, New York, New York, will be the depositary for all securities issued in book-entry form.

A global security may not be transferred to or registered in the name of anyone other than the depositary, its nominee or a successor depositary, unless special termination situations arise. We describe those situations below under "Special Situations When a Global Security Will Be Terminated." As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all securities represented by a global security, and investors will be permitted to own only beneficial interests in a global security. Beneficial interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose security is represented by a global security will not be a holder of the security, but only an indirect holder of a beneficial interest in the global security.

If the prospectus supplement for a particular security indicates that the security will be issued in global form only, then the security will be represented by a global security at all times unless and until the global security is terminated. If termination occurs, we may issue the securities through another book-entry clearing system or decide that the securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect holder, an investor's rights relating to a global security will be governed by the account rules of the investor's financial institution and of the depositary, as well as general laws relating to securities transfers. We do not recognize an indirect holder as a holder of securities and instead deal only with the depositary that holds the global security.

If securities are issued only in the form of a global security, an investor should be aware of the following:

- An investor cannot cause the securities to be registered in his or her name, and cannot obtain non-global certificates for his or her interest in the securities, except in the special situations we describe below;
- An investor will be an indirect holder and must look to his or her own bank or broker for payments on the securities and protection of his or her legal rights relating to the securities, as we describe above;
- An investor may not be able to sell interests in the securities to some insurance companies and to other institutions that are required by law to own their securities in non-book-entry form;

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- An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;
- The depositary's policies, which may change from time to time, will govern payments, transfers, exchanges and other matters relating to an investor's interest in a global security. We and any applicable trustee have no responsibility for any aspect of the depositary's actions or for its records of ownership interests in a global security. We and the trustee also do not supervise the depositary in any way;
- The depositary may, and we understand that AST will, require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds, and your broker or bank may require you to do so as well; and
- Financial institutions that participate in the depositary's book-entry system, and through which an investor holds its interest in a global security, may also have their own policies affecting payments, notices and other matters relating to the securities.

There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the actions of any of those intermediaries.

Special Situations When a Global Security Will Be Terminated

In a few special situations described below, the global security will terminate and interests in it will be exchanged for physical certificates representing those interests. After that exchange, the choice of whether to hold securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in securities transferred to their own name, so that they will be direct holders. We have described the rights of holders and street name investors above.

The global security will terminate when the following special situations occur:

- if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 90 days;
- if we notify any applicable trustee that we wish to terminate that global security; or
- if an event of default has occurred with regard to securities represented by that global security and has not been cured or waived.

The prospectus supplement may also list additional situations for terminating a global security that would apply only to the particular series of securities covered by the prospectus supplement. When a global security terminates, the depositary, and not we or any applicable trustee, is responsible for deciding the names of the institutions that will be the initial direct holders.

PLAN OF DISTRIBUTION

We may sell the securities being offered by this prospectus separately or together through any of the following methods:

- to or through one or more underwriters or dealers in a public offering and sale by them;
- directly to investors;
- through agents;
- through block trades in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- through any combination of these methods of sale; or
- in any manner, as provided in the applicable prospectus supplement.

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We may distribute securities from time to time in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the times of sale;
- at prices related to such prevailing market prices; or
- at negotiated prices.

We will describe the method of distribution of the securities in the applicable prospectus supplement. We may also determine the price or other terms of the securities offered under this prospectus by use of an electronic auction. We will describe how any auction will determine the price or any other terms, how potential investors may participate in the auction and the nature of the obligations of the underwriter, dealer or agent in the applicable prospectus supplement.

Unless otherwise specified in the applicable prospectus supplement, each class or series of securities will be a new issue with no established trading market, other than our common stock, which is traded on the Nasdaq Capital Market. We may elect to list any other class or series of securities on any exchange, but we are not obligated to do so. It is possible that one or more underwriters may make a market in a class or series of securities, but the underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot give any assurance as to the liquidity of the trading market for any of the securities.

Underwriters, dealers or agents may receive compensation in the form of discounts, concessions or commissions from us or our purchasers (as their agents in connection with the sale of the securities). In addition, underwriters may sell the securities to or through dealers, and those dealers may receive compensation in the form of discounts, concessions or commissions from the underwriters and/or commissions from the purchasers for whom they act as agent. These underwriters, dealers or agents may be considered to be underwriters under the Securities Act. As a result, discounts, commissions, or profits on resale received by the underwriters, dealers or agents may be treated as underwriting discounts and commissions. The prospectus supplement will identify any such underwriter, dealer or agent, and describe any compensation received by them from us. Only underwriters named in the prospectus supplement are underwriters of the securities offered by the prospectus supplement. Any initial public offering price and any discounts or concessions allowed or reallocated or paid to dealers may be changed from time to time.

We may sell the securities directly or through agents we designate from time to time. We will name any agent involved in the offering and sale of securities and we will describe any commissions we will pay the agent in the prospectus supplement. Unless the prospectus supplement states otherwise, our agent will act on a best-efforts basis for the period of its appointment.

We may authorize agents or underwriters to solicit offers by certain types of institutional investors to purchase securities from us at the public offering price set forth in the prospectus supplement pursuant to delayed delivery contracts providing for payment and delivery on a specified date in the future. We will describe the conditions to these contracts and the commissions we must pay for solicitation of these contracts in the prospectus supplement.

Underwriters, dealers and agents may be entitled to indemnification by us against certain civil liabilities, including liabilities under the Securities Act, or to contribution with respect to payments made by the underwriters, dealers or agents, under agreements between us and the underwriters, dealers and agents.

Any person participating in the distribution of common stock registered under the registration statement that includes this prospectus will be subject to applicable provisions of the Exchange Act, and the applicable SEC rules and regulations, including, among others, Regulation M, which may limit the timing of purchases and sales of any of our common stock by any such person. Furthermore, Regulation M may restrict the ability of any person engaged in the distribution of our common stock to engage in market-making activities with respect to our

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common stock. These restrictions may affect the marketability of our common stock and the ability of any person or entity to engage in market-making activities with respect to our common stock.

We may grant underwriters who participate in the distribution of the securities an option to purchase additional securities to cover overallocments, if any, in connection with the distribution. Any underwriter may engage in overallocation, stabilizing transactions, short-covering transactions and penalty bids in accordance with Regulation M that stabilize, maintain or otherwise affect the price of the offered securities. Overallocation involves sales in excess of the offering size, which create a short position. Stabilizing transactions permit bids to purchase the underlying security so long as the stabilizing bids do not exceed a specified maximum. Short covering transactions involve purchases of the common stock in the open market after the distribution is completed to cover short positions. Penalty bids permit the underwriters to reclaim a selling concession from a dealer when the common stock originally sold by the dealer is purchased in a covering transaction to cover short positions. Those activities may cause the price of the common stock to be higher than it would otherwise be. If commenced, the underwriters may discontinue any of the activities at any time. If any such activities will occur, they will be described in the applicable prospectus supplement.

Underwriters or agents and their associates may be customers of, engage in transactions with or perform services for us in the ordinary course of business and any such relationships will be described in the applicable prospectus supplement.

If more than 10% of the net proceeds of any offering of securities made under this prospectus will be received by the Financial Industry Regulatory Authority (“FINRA”) members participating in the offering or affiliates or associated persons of such FINRA members, the offering will be conducted in accordance with FINRA Conduct Rule 5110(h).

To the extent required, this prospectus may be amended or supplemented from time to time to describe a specific plan of distribution.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Morrison & Foerster LLP of Palo Alto, CA. Additional legal matters may be passed upon for us or any underwriters, dealers or agents, by counsel that we will name in an applicable prospectus supplement.

EXPERTS

The consolidated financial statements of Marrone Bio Innovations, Inc. appearing in Marrone Bio Innovations, Inc.’s Annual Report (Form 10-K) for the year ended December 31, 2015, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company’s ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We are a reporting company and file annual, quarterly and current reports, proxy statements and other information with the Securities and Exchange Commission, or the SEC. You may read and copy these reports, proxy statements and other information at the SEC’s public reference rooms at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for more information about the operation of the public reference rooms. Our SEC filings are also available at the SEC’s website at www.sec.gov and our website at www.durect.com. We have not incorporated by reference into this prospectus the information contained on our

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website and you should not consider it to be part of this prospectus. In addition, you can read and copy our SEC filings at the office of the National Association of Securities Dealers, Inc. at 1735 K Street, Washington, D.C. 20006.

We have filed a registration statement on Form S-3 with the SEC relating to the securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all of the information in the registration statement. You may review a copy of the registration statement at the SEC's public reference room in Washington, D.C., as well as through the SEC's Internet site at www.sec.gov.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with it, which means that we can disclose important information to you by referring you to those documents. The information incorporated by reference is considered to be part of this prospectus. In addition, information we file with the SEC in the future will automatically update and supersede information contained in this prospectus and any accompanying prospectus supplement.

This prospectus incorporates by reference the documents set forth below that we have previously filed with the SEC:

- our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 30, 2016;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016 and filed with the SEC on May 16, 2016, August 15, 2016 and November 14, 2016, respectively; and
- our Current Reports on Form 8-K filed with the SEC on January 5, 2016, January 13, 2016, February 24, 2016, March 24, 2016, April 12, 2016, April 15, 2016, May 6, 2016, May 31, 2016, June 2, 2016, June 23, 2016, July 12, 2016 and October 4, 2016.

We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, excluding, in each case, information deemed furnished and not filed until we sell all of the securities we are offering. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

We will provide to you at no cost a copy of any and all of the information incorporated by reference into the registration statement of which this prospectus is a part. You may make a request for copies of this information in writing or by telephone. Requests should be directed to:

Marrone Bio Innovations, Inc.
1540 Drew Avenue
Davis, California 95618
Attn: Pamela G. Marrone, Ph.D., President and Chief Executive Officer
(530) 750-2800

The information in this prospectus supplement is not complete and may be changed. We may not sell these securities until the registration statement filed with the Securities and Exchange Commission is effective. This prospectus supplement is not an offer to sell these securities, and we are not soliciting offers to buy these securities, in any state or other jurisdiction where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED DECEMBER 9, 2016

PROSPECTUS SUPPLEMENT

Up to \$15,000,000



Common Stock

Marrone Bio Innovations, Inc. ("MBI") has entered into an At the Market Offering Agreement with H.C. Wainwright & Co., LLC ("H.C. Wainwright"), or the offering agreement, relating to shares of our common stock, par value \$0.00001, offered by this prospectus supplement. In accordance with the terms of the offering agreement, we may offer and sell shares of our common stock having an aggregate offering price of up to \$15,000,000 from time to time through H.C. Wainwright, acting as agent. Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be "at-the-market" equity offerings as defined in Rule 415 under the Securities Act of 1933, as amended, or the Securities Act, including without limitation sales made directly on the Nasdaq Capital Market, on any other existing trading market for our common stock or to or through a market maker or under certain circumstances in privately negotiated transactions. Sales of our common stock, if any, under this prospectus supplement may also be made in privately negotiated transactions, subject to MBI's prior written approval and our filing of a further prospectus supplement describing the terms of such transaction.

Our common stock trades on the Nasdaq Capital Market under the symbol "MBIL." On December 5, 2016, the last reported sale price of the common stock on the Nasdaq Capital Market was \$2.42 per share.

H.C. Wainwright will act as sales agent and use commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell on our behalf all of the shares of common stock requested to be sold by us, on mutually agreed terms between H.C. Wainwright and us. There is no arrangement for funds to be received in any escrow, trust or similar arrangement. H.C. Wainwright will be entitled to a placement fee equal to 2% of the gross sales price of the shares sold. In connection with the sale of our common stock on our behalf, H.C. Wainwright will be deemed to be an "underwriter" within the meaning of the Securities Act and the compensation of H.C. Wainwright will be deemed to be underwriting commissions or discounts.

As of November 9, 2016, the aggregate market value of our outstanding common stock held by non-affiliates, or the public float, was approximately \$48.6 million based on 24,658,302 shares of outstanding stock, of which 18,852,942 are held by non-affiliates, and a per share price of \$2.58, which was the closing sale price of our common stock on November 9, 2016. Pursuant to General Instruction I.B.6 of Form S-3, in no event will we sell our common stock in a public primary offering with a value exceeding more than one-third of our public float in any 12-month period so long as our public float remains below \$75,000,000. We have not offered any securities pursuant to General Instruction I.B.6 of Form S-3 during the prior 12 calendar month period that ends on and includes the date of this prospectus. As of November 9, 2016, one-third of our public float is equal to approximately \$16.2 million.

INVESTING IN OUR SECURITIES INVOLVES A HIGH DEGREE OF RISK. YOU SHOULD CAREFULLY READ AND CONSIDER THE RISK FACTORS DESCRIBED IN THIS PROSPECTUS SUPPLEMENT, THE ACCOMPANYING PROSPECTUS AND IN THE DOCUMENTS INCORPORATED BY REFERENCE INTO THIS PROSPECTUS SUPPLEMENT. SEE "[RISK FACTORS](#)" BEGINNING ON PAGE S-5.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus supplement is truthful or complete. Any representation to the contrary is a criminal offense.

Rodman & Renshaw
a unit of H.C. Wainwright & Co.

The date of this prospectus supplement is _____, 2016

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we have filed with the Securities and Exchange Commission, or SEC, utilizing a “shelf” registration process. Under the shelf registration process, we may offer shares of our common stock having an aggregate offering price of up to \$50,000,000 from time to time under this prospectus supplement at prices and on terms to be determined by market conditions at the time of offering.

We provide information to you about this offering of shares of our common stock in two separate documents that are bound together: (1) this offering agreement prospectus supplement, which describes the specific details regarding this offering; and (2) the accompanying base prospectus, which provides general information, some of which may not apply to this offering. Generally, when we refer to this “prospectus,” we are referring to both documents combined. If information in this offering agreement prospectus supplement is inconsistent with the accompanying base prospectus, you should rely on this prospectus supplement. However, if any statement in one of these documents is inconsistent with a statement in another document having a later date—for example, a document incorporated by reference in this prospectus—the statement in the document having the later date modifies or supersedes the earlier statement as our business, financial condition, results of operations and prospects may have changed since the earlier dates.

We further note that the representations, warranties and covenants made by us in any agreement that is filed as an exhibit to any document that is incorporated by reference herein were made solely for the benefit of the parties to such agreement, including, in some cases, for the purpose of allocating risk among the parties to such agreement, and should not be deemed to be a representation, warranty or covenant to you. Moreover, such representations, warranties or covenants were accurate only as of the date when made. Accordingly such representations, warranties and covenants should not be relied on as accurately representing the current state of our affairs.

You should rely only on the information contained in, or incorporated by reference into, this prospectus and in any free writing prospectus that we may authorize for use in connection with this offering. We have not, and H.C. Wainwright has not, authorized any other person to provide you with different information. If anyone provides you with different or inconsistent information, you should not rely on it. We are not, and H.C. Wainwright is not, making an offer to sell or soliciting an offer to buy our securities in any jurisdiction in which an offer or solicitation is not authorized or in which the person making that offer or solicitation is not qualified to do so or to anyone to whom it is unlawful to make an offer or solicitation. You should assume that the information appearing in this prospectus, the documents incorporated by reference into this prospectus, and in any free writing prospectus that we may authorize for use in connection with this offering, is accurate only as of the date of those respective documents. Our business, financial condition, results of operations and prospects may have changed since those dates. You should read this prospectus, the documents incorporated by reference into this prospectus, and any free writing prospectus that we may authorize for use in connection with this offering, in their entirety before making an investment decision. You should also read and consider the information in the documents to which we have referred you in the sections of this prospectus entitled “Where You Can Find More Information” and “Incorporation of Certain Documents By Reference.”

We are offering to sell, and seeking offers to buy, shares of common stock only in jurisdictions where offers and sales are permitted. The distribution of this prospectus and the offering of the common stock in certain jurisdictions may be restricted by law. Persons outside the United States who come into possession of this prospectus must inform themselves about, and observe any restrictions relating to, the offering of the common stock and the distribution of this prospectus outside the United States. This prospectus does not constitute, and may not be used in connection with, an offer to sell, or a solicitation of an offer to buy, any securities offered by this prospectus by any person in any jurisdiction in which it is unlawful for such person to make such an offer or solicitation.

For purposes of this prospectus, references to the terms “MBI,” “the Company,” “we,” “us” and “our” refer to Marrone Bio Innovations, Inc., unless the context otherwise requires.

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This prospectus and the information incorporated by reference herein and therein include trademarks, service marks and trade names owned by us or other companies. All trademarks, service marks and trade names included or incorporated by reference into this prospectus are the property of their respective owners.

PROSPECTUS SUMMARY

The following summary highlights certain information contained elsewhere in this prospectus supplement, the accompanying base prospectus, any free writing prospectus that we have been authorized to use and the documents incorporated by reference herein and in the accompanying base prospectus. This summary does not contain all the information you will need in making your investment decision. You should carefully read this entire prospectus supplement the accompanying base prospectus, any free writing prospectus that we have been authorized to use and the documents incorporated by reference herein and in the accompanying base prospectus. You should pay special attention to the “Risk Factors” section of this prospectus and the financial statements and other information incorporated by reference in this prospectus.

Company Overview

We make bio-based pest management and plant health products, targeting the major markets that use conventional chemical pesticides, including certain agricultural and water markets where our bio-based products are used as alternatives for, or mixed with, conventional chemical pesticides. We also target new markets for which (i) there are no available conventional chemical pesticides or (ii) the use of conventional chemical pesticides may not be desirable or permissible either because of health and environmental concerns (including for organically certified crops) or because the development of pest resistance has reduced the efficacy of conventional chemical pesticides. We deliver EPA-approved and registered biopesticide products and other bio-based products that address the global demand for effective, safe and environmentally responsible products.

We currently primarily sell our products to the crop protection market. Our commercially available crop protection product lines are Regalia, for plant disease control and plant health, Grandevo and Venerate, for insect and mite control and Majestene for nematode control. We sell our crop protection products to leading agrichemical distributors while also working directly with growers to increase existing and generate new product demand. In March 2016, we also entered into an agreement with Isagro USA to distribute Bio-Tam 2.0 for soil-borne disease control and grapevine trunk disease control, which complements our existing products, particularly Regalia. In addition, we have developed a commercially available water treatment product, Zequanox, which selectively controls invasive mussels that cause significant infrastructure and ecological damage across a broad range of in-pipe and open-water applications, including hydroelectric and thermoelectric power generation, industrial applications and recreation.

Additional details on these products are contained in our annual report on Form 10-K for the year ended December 31, 2015.

Company Information

Our corporate headquarters are located at 1540 Drew Avenue in Davis, California 95618. Our telephone number is (530) 750-2800, and our website address is www.marronebioinnovations.com. The information on or accessible through our website does not constitute part of this prospectus supplement or the accompanying prospectus and should not be relied upon in connection with making any investment in our securities.

The common stock of MBI is listed on Nasdaq under symbol “MBII.”

THE OFFERING

Common stock to be offered by us	Shares of our common stock having an aggregate offering price of up to \$15,000,000
Common shares to be outstanding after this offering	30,856,649
Manner of offering	An “at-the-market” offering of shares of common stock that may be made from time to time through our sales agent, H.C. Wainwright & Co., LLC. See “Plan of Distribution” on page S-9.
Use of proceeds	We intend to use the net proceeds primarily for general corporate purposes, which may include operating expenses, working capital to improve and promote our commercially available products, advance product candidates, expand international presence and commercialization, general capital expenditures and satisfaction of debt obligations. See “Use of Proceeds” on page S-7.
Nasdaq Capital Market symbol	“MBII.”
Risk factors	Before investing in our common stock, you should carefully read and consider the “Risk Factors” beginning on page S-5 of this prospectus, and the risks set forth under the caption of Item 1A Risk Factors included in our most recent Annual Report on Form 10-K for the year ended December 31, 2015, and any documents incorporated by reference, for certain considerations relevant to an investment in our common stock.

The number of shares of common stock to be outstanding after this offering is based on 24,658,302 shares of common stock outstanding as of September 30, 2016 and a total offering of an aggregate of 6,198,347 shares of our common stock at a public offering price of \$2.42 per share, which was the last reported sale price of our common stock on the Nasdaq Capital Market on December 5, 2016, and excludes as of September 30, 2016:

- 3,056,185 shares of common stock issuable upon the exercise of stock options outstanding at a weighted average exercise price of \$6.00 per share, 415,161 shares of common stock issuable upon settlement of restricted stock units and 1,969,136 additional shares of common stock reserved for issuance under our stock option plan; and
- 4,026,788 shares of common stock issuable upon the exercise of warrants outstanding at a weighted exercise price of \$1.95 per share.

RISK FACTORS

Investing in our securities involves a high degree of risk. You should carefully consider the specific risks described below and the risks described in our Annual Report on Form 10-K for the year ended December 31, 2015 and in our Quarterly Reports on Form 10-Q for the quarters ended March 31, June 30, and September 30, 2016, which are incorporated by reference in this prospectus in their entirety, as well as the other information contained in this prospectus and the other documents incorporated by reference, before making an investment decision. See the sections of this prospectus entitled "Where You Can Find More Information" and "Incorporation of Certain Information By Reference." Any of the risks we describe below or in the information incorporated herein by reference in this prospectus could cause our business, financial condition or operating results to suffer. The market price of our common stock could decline if one or more of these risks and uncertainties develop into actual events. You could lose all or part of your investment.

A substantial number of shares may be sold in the market following this offering, which may depress the market price for our common stock.

Sales of additional shares of our common stock in the public market during this offering could cause the market price of our common stock to decline. Although there can be no assurance that all \$15,000,000 worth of shares being offered under this prospectus will be sold or the price at which any such shares might be sold, assuming that an aggregate of 6,198,347 shares of our common stock are sold during the term of the offering agreement with H.C. Wainwright, in each case, for example, at a price of \$2.42 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on December 5, 2016, upon completion of this offering, based on our shares outstanding as of September 30, 2016, we will have outstanding an aggregate of 30,856,649 shares of common stock, assuming no exercise of outstanding stock options and no purchases of stock under our employee stock incentive plan. A substantial majority of the outstanding shares of our common stock are, and all of the shares sold in this offering upon issuance will be, freely tradable without restriction or further registration under the Securities Act of 1933, as amended, or the Securities Act, unless these shares are owned or purchased by "affiliates" as that term is defined in Rule 144 under the Securities Act. In addition, we have also registered all of the shares of common stock that we may issue under our outstanding stock options and employee stock incentive plans, and as of September 30, 2016, 3,056,185 shares of common stock were issuable upon the exercise of outstanding stock options at a weighted average exercise price of \$6.00 per share, 415,161 shares of common stock were issuable upon settlement of restricted stock units and 1,969,136 additional shares of common stock were reserved for issuance under our stock option plan. In addition, 4,026,788 shares of common stock were issuable upon the exercise of outstanding warrants at a weighted exercise price of \$1.95 per share. As a result, these shares can be freely sold in the public market upon issuance, subject to restrictions under the securities laws.

Management will have broad discretion as to the use of proceeds from this offering and we may use the net proceeds in ways with which you may disagree.

We intend to use the net proceeds of this offering for general corporate purposes, which may include operating expenses, working capital to improve and promote our commercially available products, advance product candidates, expand international presence and commercialization, general capital expenditures and satisfaction of debt obligations. Our management will have broad discretion in the application of the net proceeds from this offering and could spend the proceeds in ways that do not improve our results of operations or enhance the value of our common stock. Accordingly, you will be relying on the judgment of our management with regard to the use of net proceeds, and you will not have the opportunity, as part of your investment decision, to assess whether the proceeds are being used appropriately. Our failure to apply these funds effectively could have a material adverse effect on our business, delay the development of our product candidates and cause the price of our common stock to decline.

You may experience future dilution as a result of this offering, future equity offerings or other equity issuances.

We anticipate the need to raise substantial capital in addition to the amounts we may raise in this offering. In order to raise such capital, we may in the future offer and issue additional shares of our common stock or other securities convertible into or exchangeable for our common stock. We cannot assure you that we will be able to sell shares or other securities in any other offering at a price per share that is equal to or greater than the price per share paid by investors in this offering from time to time, and investors purchasing shares or other securities in the future could have rights superior to existing stockholders. The price per share at which we sell additional shares of our common stock or other securities convertible into or exchangeable for our common stock in future transactions may be higher or lower than the price per share in this offering. For example, as of September 30, 2016, an aggregate of 1,969,136 share-based awards were reserved and available for grant under our equity compensation plans. Also as of such date, there were 3,471,346 shares of our common stock to be issued upon conversion of outstanding restricted stock units and exercise of outstanding options as well as 4,026,788 shares of our common stock to be issued upon the exercise of outstanding warrants at a weighted exercise price of \$1.95 per share. You may incur dilution upon the grant of any shares pursuant to such plan, upon vesting of any stock awards under any such plan, or upon exercise of any such outstanding options or warrants.

We do not anticipate paying dividends on our common stock in the foreseeable future.

We currently plan to invest all available funds, including the proceeds from this offering, and future earnings, if any, in the development and growth of our business. We currently do not anticipate paying any cash dividends on our common stock in the foreseeable future. As a result, a rise in the market price of our common stock, which is uncertain and unpredictable, will be your sole source of potential gain in the foreseeable future, and you should not rely on an investment in our common stock for dividend income.

CAUTIONARY NOTE REGARDING FORWARD LOOKING INFORMATION

This prospectus and the documents we incorporate by reference in this prospectus contains forward-looking statements. All statements, other than statements of historical facts, included or incorporated in this prospectus regarding our strategy, future operations, financial position, future revenues, projected costs, prospects, plans and objectives of management are forward-looking statements. We may, in some cases, use words such as “believe,” “anticipate,” “should,” “intend,” “plan,” “will,” “estimate,” “project,” “expect” and similar expressions, although not all forward-looking statements contain these identifying words. These statements are based on assumptions and assessments made by our management in light of its experience and its perception of historical trends, current conditions, expected future developments and other factors our management believes to be appropriate. These forward-looking statements are subject to a number of risks and uncertainties, including those risks described or incorporated by reference in this prospectus under “Risk Factors” above.

Forward-looking statements included or incorporated by reference in this prospectus include, for example, statements about: our plans to target our existing products or product variations for new markets and for new uses and applications; our plans and expectations with respect to growth in sales of our product lines and with respect to Bio-Tam 2.0; our ability and plans to develop, register and commercialize additional new product candidates and bring new products to market across multiple categories faster and at a lower cost than other developers of pest management products, including research, development and field trial plans; our expectations regarding registering new products and new formulations and expanded use labels for existing products, including submitting new products to the EPA; our belief that challenges facing the use of conventional chemical pesticides will continue to grow; our beliefs regarding the growth of markets for, and unmet demand for, bio-based products; our beliefs regarding market adoption of our products and our ability to compete in our target markets; our intention to maintain existing, and develop new, supply, sales and distribution channels and extend market access; expectations regarding potential future payments under strategic collaboration and development agreements; our plans and expectations relating to our debt agreements; our plans to grow our business while improving efficiency, including

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by focusing on a limited number of product candidates, taking measures to reduce expenses and expanding our sales and marketing team; our plans with respect to manufacturing; our plans to seek third-party collaborations to develop and commercialize more early stage product candidates; our intention to continue to devote significant resources toward our proprietary technology and research and development; our expectations that sales will be seasonal and the impact of continued drought and other weather-related conditions; our ability to protect our intellectual property in the United States and abroad; our beliefs regarding the effects of the outcome of certain legal matters; our anticipated impact of certain accounting pronouncements; our ability to use carryforwards; our expectations regarding market risk, including interest rate changes, foreign currency fluctuations and commodity price changes; and our future financial and operating results.

Any such forward-looking statements are not guarantees of future performance and actual results, developments and business decisions may differ from those contemplated by such forward-looking statements. We disclaim any duty to update any forward-looking statements. You should also carefully consider other information set forth in reports or other documents that we file with the Securities and Exchange Commission.

USE OF PROCEEDS

The amount of proceeds from this offering will depend upon the number of shares of our common stock sold and the market price at which they are sold. There can be no assurance that we will be able to sell any shares under or fully utilize the offering agreement with H.C. Wainwright as a source of financing. We intend to use the net proceeds, if any, from the sale of the shares of common stock under this prospectus for general corporate purposes, which may include operating expenses, working capital to improve and promote our commercially available products, advance product candidates, expand international presence and commercialization, general capital expenditures and satisfaction of debt obligations.

The amounts actually expended for each purpose may vary significantly depending upon numerous factors, including the amount and timing of the proceeds from this offering and progress with the development of our products and business. Expenditures will also depend upon the establishment of collaborative arrangements with other companies, the availability of additional financing and other factors. Investors will be relying on the judgment of our management regarding the application of the proceeds of any sale of shares of our common stock.

As of the date of this prospectus, we cannot specify with certainty all of the particular uses of the proceeds from this offering. Accordingly, we will retain broad discretion over the use of such proceeds. Pending the use of the net proceeds from this offering as described above, we intend to invest the net proceeds in investment-grade, interest-bearing securities.

DILUTION

Dilution per share to new investors is defined herein as the difference between the amount per share paid by purchasers for our common stock in this offering and the net tangible book value per share of our common stock immediately following the completion of this offering.

If you invest in our common stock, your interest will be diluted immediately to the extent of the difference between the public offering price per share of our common stock and the as adjusted net tangible book value per share of common stock after this offering.

Net tangible book value per share represents the amount of our total tangible assets less total liabilities divided by the total number of shares of our common stock outstanding.

The net tangible book value of our common stock as of September 30, 2016 was approximately \$(23.2) million, or approximately \$(0.94) per share.

After giving effect to the sale of shares of common stock offered by this prospectus at an assumed public offering price of \$2.42 per share (the last reported sale price of our common stock on the Nasdaq Capital Market on

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December 5, 2016), and after deducting commissions and estimated aggregate offering expenses payable by us, our as adjusted net tangible book value as of September 30, 2016 would have been approximately \$(8.7) million, or approximately \$(0.28) per share. This represents an immediate increase in adjusted net tangible book value per share of approximately \$0.66 and an immediate dilution in adjusted net tangible book value per share to purchasers of our common stock in this offering of approximately \$2.70, as illustrated by the following table:

Assumed public offering price per share	\$ 2.42
Net tangible book value per share at September 30, 2016	\$(0.94)
Increase in net tangible book value per share attributable to investors purchasing our common stock in this offering	<u>\$ 0.66</u>
As adjusted net tangible book value per share as of September 30, 2016 after giving effect to this offering	<u>\$(0.28)</u>
Dilution per share to investors purchasing our common stock in this offering	<u>\$ 2.70</u>

The table above assumes for illustrative purposes that an aggregate of 6,198,347 shares of our common stock are sold at a price of \$2.42 per share, the last reported sale price of our common stock on the Nasdaq Capital Market on December 5, 2016, for aggregate gross proceeds of approximately \$15,000,000. The shares sold in this offering, if any, will be sold from time to time at various prices. An increase of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$2.42 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$15,000,000 is sold at that price, would decrease our as adjusted net tangible book value per share after the offering to \$(0.30) per share and would increase the dilution in net tangible book value per share to new investors to \$3.72 per share, after deducting commissions and estimated aggregate offering expenses payable by us. A decrease of \$1.00 per share in the price at which the shares are sold from the assumed offering price of \$2.42 per share shown in the table above, assuming all of our common stock in the aggregate amount of \$15,000,000 is sold at that price, would increase our as adjusted net tangible book value per share after the offering to \$(0.25) per share and would decrease the dilution in net tangible book value per share to new investors to \$1.67 per share, after deducting commissions and estimated aggregate offering expenses payable by us.

The information discussed above is illustrative only and will adjust based on the actual public offering price and other terms of this offering as determined at pricing.

The above table is based on 24,658,302 shares outstanding as of September 30, 2016, and excludes as of such date:

- 3,056,185 shares of common stock issuable upon the exercise of stock options outstanding under our stock option plans at a weighted average exercise price of \$6.00 per share, 415,161 shares of common stock issuable upon settlement of restricted stock units and 1,969,136 additional shares of common stock reserved for issuance under our stock option plan; and
- 4,026,788 shares of common stock issuable upon the exercise of warrants outstanding at a weighted exercise price of \$1.95 per share.

To the extent that outstanding options or warrants are exercised or restricted stock units are settled, you will experience further dilution. In addition, we anticipate the need to raise substantial additional capital, and to the extent that additional capital is raised through the sale of equity or convertible debt securities at the same or lower price per share, the issuance of these securities could result in further dilution to our stockholders.

PRICE RANGE OF COMMON STOCK

Our common stock has been traded on the Nasdaq Capital Market under the symbol “MBII” since our initial public offering in August 2013. The following table sets forth, for the periods indicated, the high and low sales prices for our common stock as reported by Nasdaq:

	Common Stock Price	
	Low	High
Year ended December 31, 2016		
First Quarter	\$ 0.62	\$ 1.65
Second Quarter	0.60	0.97
Third Quarter	0.71	1.92
Fourth Quarter (though December 5, 2016)	1.61	2.79
Year ended December 31, 2015		
First Quarter	\$ 3.30	\$ 5.01
Second Quarter	1.84	4.43
Third Quarter	1.74	2.27
Fourth Quarter	1.00	4.00
Year ended December 31, 2014		
First Quarter	\$ 13.05	\$ 19.64
Second Quarter	8.21	14.03
Third Quarter	2.41	11.84
Fourth Quarter	1.85	3.75

The closing sale price of our common stock as reported on the Nasdaq Capital Market on December 5, 2016 was \$2.42 per share. As of that date there were approximately 70 holders of record of the common stock. This does not include the number of persons whose stock is in nominee or “street name” accounts through brokers. We believe the market price of our common stock has been, and in certain cases may continue to be, subject to wide fluctuations as a result of our limited public float and in response to a number of events and factors, such as our recent financial restatement, the investigations and lawsuits arising out of related matters and the resulting disruption to our operations, quarterly variations in our operating results and those of our competitors or customers, announcements of technological innovations or new products, services or commercial relationships by us or our competitors, our ability to develop and market new products on a timely basis, media reports, publications and announcements about us, our competitors or the pest management industry, our entry into, modification of or termination of key license, research and development or collaborative agreements, new regulatory pronouncements and changes in regulatory guidelines or the status of our regulatory approvals, changes in our board of directors or management, and changes in financial estimates and recommendations by securities analysts. These fluctuations, as well as general and industry-specific economic and market conditions, may adversely affect the market price for our common stock.

PLAN OF DISTRIBUTION

We have entered into an offering agreement with H.C. Wainwright, under which we may issue and sell shares of our common stock having an aggregate gross sales price of up to \$15,000,000 from time to time through H.C. Wainwright acting as a sales agent. Sales of our common stock, if any, under this prospectus supplement may be made in sales deemed to be “at-the-market” equity offerings as defined in Rule 415 promulgated under the Securities Act of 1933, as amended, or the Securities Act, including without limitation sales made directly on the Nasdaq Capital Market, on any other existing trading market for our common stock or to or through a market maker or under certain circumstances and subject to our prior approval, in privately negotiated transactions, in which case,

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we will file a further prospectus supplement describing the terms of such transaction. The offering agreement has been filed as an exhibit to our registration statement on Form S-3 of which this prospectus forms a part.

H.C. Wainwright will offer the shares of our common stock subject to the terms and conditions of the offering agreement on a daily basis or as otherwise agreed upon by us and H.C. Wainwright on any day that (i) is a trading day for the Nasdaq Capital Market; (ii) we have instructed H.C. Wainwright by telephone to make such sales; and (iii) we have satisfied the conditions under Section 7 of the offering agreement. We will designate the maximum number of shares of common stock to be sold through H.C. Wainwright on a daily basis. Subject to the terms and conditions of the offering agreement, H.C. Wainwright will use its commercially reasonable efforts to sell on our behalf all of the shares of common stock so designated or determined. We or H.C. Wainwright may suspend the offering of shares of common stock being made through H.C. Wainwright under the offering agreement upon proper notice to the other party.

We will pay H.C. Wainwright commissions, in cash, for its services in acting as agent in the sale of our common stock. H.C. Wainwright will be entitled to a placement fee of 2% of the gross sales price of the shares sold. Because there is no minimum offering amount required as a condition to close this offering, the actual total public offering amount, commissions and proceeds to us, if any, are not determinable at this time. We have also agreed to reimburse H.C. Wainwright for certain specified expenses, including the fees and disbursements of its legal counsel in an amount not to exceed \$60,000, as provided in the offering agreement. We estimate that the total expenses for the offering, excluding compensation and reimbursements payable to H.C. Wainwright under the terms of the offering agreement, will be approximately \$115,000.

Settlement for sales of common stock will occur at 10:00 a.m. (New York City time), or at some other time that is agreed upon by us and H.C. Wainwright in connection with a particular transaction, on the third business day following delivery of the shares issued, in return for payment of the net proceeds to us. Sales of our common stock as contemplated in this prospectus will be settled through the facilities of The Depository Trust Company or by such other means as we and H.C. Wainwright may agree upon. There is no arrangement for funds to be received in an escrow, trust or similar arrangement.

H.C. Wainwright will use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell on our behalf all of the shares of common stock requested to be sold by us, subject to the conditions set forth in the offering agreement. In connection with the sale of the common stock on our behalf, H.C. Wainwright will be deemed to be an “underwriter” within the meaning of the Securities Act and the compensation of H.C. Wainwright will be deemed to be underwriting commissions or discounts. We have agreed to provide indemnification and contribution to H.C. Wainwright against certain civil liabilities, including liabilities under the Securities Act.

The offering of our common stock pursuant to the offering agreement will terminate as permitted therein. We may terminate the offering agreement at any time upon 5 days’ prior notice.

H.C. Wainwright and its affiliates may in the future provide various investment banking, commercial banking and other financial services for us and our affiliates, for which services they may in the future receive customary fees, although we have no current agreements to do so. To the extent required by Regulation M, H.C. Wainwright will not engage in any market making activities involving our common stock while the offering is ongoing under this prospectus.

This prospectus in electronic format may be made available on a website maintained by H.C. Wainwright and H.C. Wainwright may distribute this prospectus electronically.

LEGAL MATTERS

The validity of the securities being offered by this prospectus will be passed upon by Morrison & Foerster LLP of Palo Alto. H.C. Wainwright is being represented in connection with this offering by Ellenoff Grossman & Schole LLP.

EXPERTS

The consolidated financial statements of Marrone Bio Innovations, Inc. appearing in Marrone Bio Innovations, Inc.'s Annual Report (Form 10-K) for the year ended December 31, 2015, have been audited by Ernst & Young LLP, independent registered public accounting firm, as set forth in their report thereon (which contains an explanatory paragraph describing conditions that raise substantial doubt about the Company's ability to continue as a going concern as described in Note 1 to the consolidated financial statements), included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND MORE INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, of which this prospectus forms a part. The rules and regulations of the SEC allow us to omit from this prospectus certain information included in the registration statement. For further information about us and the securities we are offering under this prospectus, you should refer to the registration statement and the exhibits and schedules filed with the registration statement. With respect to the statements contained in this prospectus regarding the contents of any agreement or any other document, in each instance, the statement is qualified in all respects by the complete text of the agreement or document, a copy of which has been filed as an exhibit to the registration statement.

We file annual, quarterly and current reports, proxy statements and other information with the SEC. Our SEC filings, including the registration statement and exhibits, are available to the public at the SEC's website at <http://www.sec.gov>. You may also read, without charge, and copy the documents we file, at the SEC's public reference rooms at 100 F Street, N.E., Room 1580, Washington, D.C. 20549. You can request copies of these documents by writing to the SEC and paying a fee for the copying cost. Please call the SEC at 1-800-SEC-0330 for further information on the public reference rooms.

We maintain an Internet site at www.marronebioinnovations.com. Webcasts of presentations we make at certain conferences may also be available on our website from time to time. We have not incorporated by reference into this prospectus the information on our website, and you should not consider any of the information posted on or hyper-linked to our website to be a part of this prospectus.

INCORPORATION OF CERTAIN DOCUMENTS BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with the SEC, which means we can disclose important information to you by referring you to those documents. The information we incorporate by reference is an important part of this prospectus, and certain information that we will later file with the SEC will automatically update and supersede this information. We incorporate by reference the documents listed below as well as any future filings made with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act after the date of this prospectus until we sell all of the securities under this prospectus, except that we do not incorporate any document or portion of a document that is "furnished" to the SEC, but not deemed "filed." The following documents filed with the SEC are incorporated by reference in this prospectus:

- our Annual Report on Form 10-K for the year ended December 31, 2015 filed with the SEC on March 30, 2016;
- our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2016, June 30, 2016 and September 30, 2016 and filed with the SEC on May 16, 2016, August 15, 2016 and November 14, 2016, respectively; and
- our Current Reports on Form 8-K filed with the SEC on January 5, 2016, January 13, 2016, February 24, 2016, March 24, 2016, April 12, 2016, April 15, 2016, May 6, 2016, May 31, 2016, June 2, 2016, June 23, 2016, July 12, 2016 and October 4, 2016.

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We also incorporate by reference into this prospectus additional documents that we may file with the SEC under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act, excluding, in each case, information deemed furnished and not filed until we sell all of the securities we are offering. Any statements contained in a previously filed document incorporated by reference into this prospectus is deemed to be modified or superseded for purposes of this prospectus to the extent that a statement contained in this prospectus, or in a subsequently filed document also incorporated by reference herein, modifies or supersedes that statement.

We will provide to you at no cost a copy of any and all of the information incorporated by reference into the registration statement of which this prospectus is a part. You may make a request for copies of this information in writing or by telephone. Requests should be directed to:

Marrone Bio Innovations, Inc.
1540 Drew Avenue
Davis, California 95618
Attn: Pamela G. Marrone, Ph.D., President and Chief Executive Officer
(530) 750-2800

Up to \$15,000,000



Common Stock

PROSPECTUS SUPPLEMENT

, 2016

Rodman & Renshaw
a unit of H.C. Wainwright & Co.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

Item 14. Other expenses of issuance and distribution

The following table sets forth all expenses, other than the underwriting discounts and commissions, payable by us in connection with this offering. All the amounts shown are estimates except for the registration fee.

SEC registration fee	\$ 5,795
FINRA fee	\$ 8,000
Accounting fees and expenses	25,000*
Legal fees and expenses	50,000*
Transfer agent and registrar fees	5,000*
Printing expenses	5,000*
Miscellaneous	16,205*
Total	\$ 115,000*

* Estimated solely for purposes of this Item. Actual expenses may vary.

Item 15. Indemnification of Directors and Officers

Section 102(b)(7) of the Delaware General Corporation Law, or DGCL, provides that a corporation may, in its original certificate of incorporation or an amendment thereto, eliminate or limit the personal liability of a director for violations of the director's fiduciary duty, except (1) for any breach of the director's duty of loyalty to the corporation or its stockholders, (2) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (3) pursuant to Section 174 of the DGCL, which provides for liability of directors for unlawful payments of dividends or unlawful stock purchases or redemptions or (4) for any transaction from which a director derived an improper personal benefit.

Section 145 of the DGCL provides that a corporation may indemnify any person, including an officer or director, who is, or is threatened to be made, party to any threatened, pending or completed legal action, suit or proceeding, whether civil, criminal, administrative or investigative, other than an action by or in the right of such corporation, by reason of the fact that such person was an officer, director, employee or agent of such corporation or is or was serving at the request of such corporation as an officer, director, employee or agent of another corporation or enterprise. The indemnity may include expenses (including attorneys' fees), judgments, fines and amounts paid in settlement actually and reasonably incurred by such person in connection with such action, suit or proceeding, provided such officer, director, employee or agent acted in good faith and in a manner he reasonably believed to be in, or not opposed to, the corporation's best interest and, for criminal proceedings, had no reasonable cause to believe that his conduct was unlawful. A Delaware corporation may indemnify any officer or director in an action by or in the right of the corporation under the same conditions, except that no indemnification is permitted without judicial approval if the officer or director is adjudged to be liable to the corporation. Where an officer or director is successful on the merits or otherwise in the defense of any action referred to above, the corporation must indemnify him against the expenses that such officer or director actually and reasonably incurred.

Our certificate of incorporation as currently in effect provides for the indemnification of directors to the fullest extent permissible under Delaware law.

Our bylaws as currently in effect provide for the indemnification of officers and directors acting on our behalf if this person acted in good faith and in a manner reasonably believed to be in and not opposed to our best interest, and, with respect to any criminal action or proceeding, the indemnified party had no reason to believe his or her conduct was unlawful.

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In addition, we have entered into separate indemnification agreements with certain of our executive officers and directors. Such agreements may require us, among other things, to advance expenses and otherwise indemnify our executive officers and directors against certain liabilities that may arise by reason of their status or service as executive officers or directors, to the fullest extent permitted by law. We intend to enter into indemnification agreements with any new directors and executive officers in the future.

We have purchased and intend to maintain insurance on behalf of us and any person who is or was a director or officer against any loss arising from any claim asserted against him or her and incurred by him or her in that capacity, subject to certain exclusions and limits of the amount of coverage.

Item 16. Exhibits and Financial Statement Schedules

(a) The following exhibits are filed herewith or incorporated herein by reference:

Exhibit Number	Description
1.1	At the Market Offering Agreement, dated December 9, 2016, by and between the Company and H.C. Wainwright & Co., LLC
1.2	Form of Underwriting Agreement (for Common Stock)*
1.3	Form of Underwriting Agreement (for Preferred Stock)*
1.4	Form of Underwriting Agreement (for Debt Securities)*
1.5	Form of Underwriting Agreement (for Warrants)*
1.6	Form of Underwriting Agreement (for Units)*
3.1	Fourth Amended and Restated Certificate of Incorporation of Marrone Bio Innovations, Inc. (incorporated by reference to Exhibit 3.1 to the Company's Annual Report on Form 10-K, as filed with the SEC on March 25, 2014)
3.2	Amended and Restated Bylaws of Marrone Bio Innovations, Inc. (incorporated by reference to Exhibit 3.2 to the Company's Annual Report on Form 10-K, as filed with the SEC on March 25, 2014)
4.1	Form of Common Stock Certificate*
4.2	Form of Preferred Stock Certificate*
4.3	Form of Designation of Preferred Stock*
4.4	Form of Common Stock Warrant Agreement (including warrant certificate)*
4.5	Form of Preferred Stock Warrant Agreement (including warrant certificate)*
4.6	Form of Unit Agreement (including form of unit certificate)*
4.7	Form of Rights Agreement (including form of rights certificate)*
4.8	Form of Indenture
5.1	Opinion of Morrison & Foerster LLP
23.1	Consent of Independent Registered Public Accounting Firm
23.2	Consent of Counsel (included in Exhibit 5.1)
24.1	Powers of Attorney
25.1	Form T-1 Statement of Eligibility under Trust Indenture Act of 1939 of Debt Trustee (to be filed prior to any issuance of Debt Securities) (1)

- * To be filed by amendment or by a Current Report on Form 8-K and incorporated herein by reference.
(1) To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939.

Item 17. Undertakings

(a) The undersigned registrant hereby undertakes:

(1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the SEC pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20% change in the maximum aggregate offering price set forth in the "Calculation of Registration Fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement,

Provided, however, that paragraphs (a)(1)(i), (a)(1)(ii) and (a)(1)(iii) above do not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in periodic reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Exchange Act that are incorporated by reference in this Registration Statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the Registration Statement.

(2) That, for the purpose of determining any liability under the Securities Act, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act to any purchaser:

(i) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(ii) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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- (5) That, for the purpose of determining liability of the Registrant under the Securities Act to any purchaser in the initial distribution of the securities, the undersigned Registrant undertakes that in a primary offering of securities of the undersigned Registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned Registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:
- (i) Any preliminary prospectus or prospectus of the undersigned Registrant relating to the offering required to be filed pursuant to Rule 424;
 - (ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned Registrant or used or referred to by the undersigned Registrant;
 - (iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned Registrant or its securities provided by or on behalf of the undersigned Registrant; and
 - (iv) Any other communication that is an offer in the offering made by the undersigned Registrant to the purchaser.
- (6) That, for purposes of determining any liability under the Securities Act, each filing of the Registrant's annual report pursuant to Section 13(a) or 15(d) of the Exchange Act (and, where applicable, each filing of an employee benefit plan's annual report pursuant to Section 15(d) of the Exchange Act) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial bona fide offering thereof.
- (7) That, insofar as indemnification for liabilities arising under the Securities Act may be permitted to directors, officers and controlling persons of the Registrant pursuant to the foregoing provisions, or otherwise, the Registrant has been advised that in the opinion of the Securities and Exchange Commission such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the Registrant of expenses incurred or paid by a director, officer or controlling person of the Registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the Registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act and will be governed by the final adjudication of such issue.
- (8) To file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the Commission under Section 305(b)(2) of the Trust Indenture Act.

EXHIBIT INDEX

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* To be filed by amendment or by a Current Report on Form 8-K and incorporated herein by reference.

(1) To be filed in accordance with the requirements of Section 305(b)(2) of the Trust Indenture Act of 1939.

AT THE MARKET OFFERING AGREEMENT

December 9, 2016

Marrone Bio Innovations, Inc.
1540 Drew Avenue
Davis, California 95618

Ladies and Gentlemen:

Marrone Bio Innovations, Inc., a corporation organized under the laws of Delaware (the “Company”), confirms its agreement (this “Agreement”) with Rodman & Renshaw, a unit of H.C. Wainwright & Co., LLC (the “Manager”) as follows:

1. Definitions. The terms that follow, when used in this Agreement and any Terms Agreement, shall have the meanings indicated.

“Accountants” shall have the meaning ascribed to such term in Section 4(m).

“Act” shall mean the Securities Act of 1933, as amended, and the rules and regulations of the Commission promulgated thereunder.

“Action” shall have the meaning ascribed to such term in Section 3(q).

“Affiliate” shall have the meaning ascribed to such term in Section 3(p).

“Applicable Time” shall mean, with respect to any Shares, the time of sale of such Shares pursuant to this Agreement or any relevant Terms Agreement.

“Base Prospectus” shall mean the base prospectus contained in the Registration Statement at the Execution Time.

“Board” shall have the meaning ascribed to such term in Section 2(b)(iii).

“Broker Fee” shall have the meaning ascribed to such term in Section 2(b)(v).

“Business Day” shall mean any day other than a Saturday, a Sunday or a legal holiday or a day on which banking institutions or trust companies are authorized or obligated by law to close in New York City.

“Commission” shall mean the United States Securities and Exchange Commission.

“Common Stock” shall have the meaning ascribed to such term in Section 2.

“Common Stock Equivalents” shall have the meaning ascribed to such term in Section 3(g).

“Company Counsel” shall have the meaning ascribed to such term in Section 4(l).

“DTC” shall have the meaning ascribed to such term in Section 2(b)(vii).

“Effective Date” shall mean each date and time that the Registration Statement and any post-effective amendment or amendments thereto became or becomes effective.

“Exchange Act” shall mean the Securities Exchange Act of 1934, as amended, and the rules and regulations of the Commission promulgated thereunder.

“Execution Time” shall mean the date and time that this Agreement is executed and delivered by the parties hereto.

“Filing Date” shall have the meaning ascribed to such term in Section 4(w).

“Free Writing Prospectus” shall mean a free writing prospectus, as defined in Rule 405.

“GAAP” shall have the meaning ascribed to such term in Section 3(n).

“Incorporated Documents” shall mean the documents or portions thereof filed with the Commission on or before the Effective Date that are incorporated by reference in the Registration Statement or the Prospectus and any documents or portions thereof filed with the Commission after the Effective Date that are deemed to be incorporated by reference in the Registration Statement or the Prospectus.

“Intellectual Property Rights” shall have the meaning ascribed to such term in Section 3(v).

“Issuer Free Writing Prospectus” shall mean an issuer free writing prospectus, as defined in Rule 433.

“Losses” shall have the meaning ascribed to such term in Section 8(d).

“Material Adverse Effect” shall have the meaning ascribed to such term in Section 3(b).

“Material Permits” shall have the meaning ascribed to such term in Section 3(t).

“Net Proceeds” shall have the meaning ascribed to such term in Section 2(b)(v).

“Permitted Free Writing Prospectus” shall have the meaning ascribed to such term in Section 4(g).

“Placement” shall have the meaning ascribed to such term in Section 2(c).

“Proceeding” shall have the meaning ascribed to such term in Section 3(b).

“Prospectus” shall mean the Base Prospectus, as supplemented by the most recently filed Prospectus Supplement (if any).

“Disclosure Package” shall mean collectively the Registration Statement, the Base Prospectus, any Prospectus Supplement, the Prospectus and the Incorporated Documents.

“Prospectus Supplement” shall mean each prospectus supplement relating to the Shares prepared and filed pursuant to Rule 424(b) from time to time.

“Registration Statement” shall mean the shelf registration statement on Form S-3 to be filed on or about the date hereof, including exhibits and financial statements and any prospectus supplement relating to the Shares that is filed with the Commission pursuant to Rule 424(b) and deemed part of such registration statement pursuant to Rule 430B, as amended on each Effective Date and, in the event any post-effective amendment thereto becomes effective, shall also mean such registration statement as so amended.

“Representation Date” shall have the meaning ascribed to such term in Section 4(k).

“Required Approvals” shall have the meaning ascribed to such term in Section 3(e).

“Rule 158”, “Rule 163”, “Rule 164”, “Rule 172”, “Rule 173”, “Rule 405”, “Rule 415”, “Rule 424”, “Rule 430B” and “Rule 433” refer to such rules under the Act.

“ Sales Notice ” shall have the meaning ascribed to such term in Section 2(b)(i).

“ SEC Reports ” shall have the meaning ascribed to such term in Section 3(m).

“ Settlement Date ” shall have the meaning ascribed to such term in Section 2(b)(vii).

“ Shares ” shall have the meaning ascribed to such term in Section 2.

“ Subsidiary ” shall have the meaning ascribed to such term in Section 3(a).

“ Terms Agreement ” shall have the meaning ascribed to such term in Section 2(a).

“ Time of Delivery ” shall have the meaning ascribed to such term in Section 2(c).

“ Trading Market ” means Nasdaq Capital Market.

2. Sale and Delivery of Shares . The Company proposes to issue and sell through or to the Manager, as sales agent and/or principal, up to \$15,000,000 of shares (the “ Shares ”) of the Company’s common stock, \$0.00001 par value (“ Common Stock ”), from time to time during the term of this Agreement and on the terms set forth herein; provided, however, that in no event shall the Company issue or sell through the Manager such number of Shares that (a) exceeds the number or dollar amount of shares of Common Stock that may be sold pursuant to the Registration Statement, pursuant to which the offering is being made, (b) exceeds the number of authorized but unissued shares of Common Stock or (c) would cause the Company or the offering of the Shares to not satisfy the eligibility and transaction requirements for use of Form S-3 (including, if applicable, General Instruction I.B.6 of Registration Statement on Form S-3 (the lesser of (a), (b) and (c), the “ Maximum Amount ”)). Notwithstanding anything to the contrary contained herein, the parties hereto agree that compliance with the limitations set forth in this Section 2 on the number and aggregate sales price of Shares issued and sold under this Agreement shall be the sole responsibility of the Company and that Manager shall have no obligation in connection with such compliance.

(a) Appointment of the Manager as Selling Agent; Term Agreement . For purposes of selling the Shares through the Manager, the Company hereby appoints the Manager as exclusive agent of the Company for the purpose of selling the Shares of the Company pursuant to this Agreement and the Manager agrees to use its commercially reasonable efforts to sell the Shares on the terms and subject to the conditions stated herein. The Company agrees that, whenever it determines to sell the Shares directly to the Manager as principal, it will enter into a separate agreement (each, a “ Terms Agreement ”) in substantially the form of Annex I hereto, relating to such sale in accordance with Section 2 of this Agreement.

(b) Agent Sales. Subject to the terms and conditions and in reliance upon the representations and warranties herein set forth, the Company will issue and agrees to sell the Shares from time to time through the Manager, acting as sales agent, and the Manager agrees to use its commercially reasonable efforts to sell, as sales agent for the Company, on the following terms:

(i) The Shares are to be sold on a daily basis or otherwise as shall be agreed to by the Company and the Manager on any day that (A) is a trading day for the Trading Market, (B) the Company has instructed the Manager by telephone (confirmed promptly by electronic mail) to make such sales (“Sales Notice”) and (C) the Company has satisfied its obligations under Section 7 of this Agreement, provided that the deliveries required under Section 7 shall only be required to be made on the Execution Time and on a Representation Date on which a material amendment to the Registration Statement or Prospectus is made or the Company files its Annual Report on Form 10-K or a material amendment thereto under the Exchange Act. The Company will designate the maximum amount of the Shares to be sold by the Manager daily (subject to the limitations set forth in Section 2(d)) and the minimum price per Share at which such Shares may be sold. Subject to the terms and conditions hereof, the Manager shall use its commercially reasonable efforts to sell on a particular day all of the Shares designated for the sale by the Company on such day. The gross sales price of the Shares sold under this Section 2(b) shall be the market price for shares of the Company’s Common Stock sold by the Manager under this Section 2(b) on the Trading Market at the time of sale of such Shares.

(ii) The Company acknowledges and agrees that (A) there can be no assurance that the Manager will be successful in selling the Shares, (B) the Manager will incur no liability or obligation to the Company or any other person or entity if it does not sell the Shares for any reason other than a failure by the Manager to use its commercially reasonable efforts consistent with its normal trading and sales practices and applicable law and regulations to sell such Shares as required under this Agreement, and (C) the Manager shall be under no obligation to purchase Shares on a principal basis pursuant to this Agreement, except as otherwise specifically agreed by the Manager and the Company pursuant to a Terms Agreement.

(iii) The Company shall not authorize the issuance and sale of, and the Manager shall not be obligated to use its commercially reasonable efforts to sell, any Share at a price lower than the minimum price therefor designated from time to time by the Company’s Board of Directors (the

“Board”), or a duly authorized committee thereof, or such duly authorized officers of the Company, and notified to the Manager in writing. The Company or the Manager may, upon notice to the other party hereto by telephone (confirmed promptly by electronic mail), suspend the offering of the Shares for any reason and at any time; provided, however, that such suspension or termination shall not affect or impair the parties’ respective obligations with respect to the Shares sold hereunder prior to the giving of such notice.

(iv) The Manager may sell Shares by any method permitted by law deemed to be an “at the market offering” as defined in Rule 415 under the Act, including without limitation sales made directly on the Trading Market, on any other existing trading market for the Common Stock or to or through a market maker. The Manager may also sell Shares in privately negotiated transactions, provided that the Manager receives the Company’s prior written approval for any sales in privately negotiated transactions and if so provided in the “Plan of Distribution” section of the Prospectus Supplement or a further supplement to the Prospectus describing the terms of such negotiated transaction. During the term of this Agreement, neither the Manager nor any of its affiliates or subsidiaries shall engage in (i) any short sale of any security of the Company or (ii) any sale of any security of the Company that the Agent does not own or any sale which is consummated by the delivery of a security of the Company borrowed by, or for the account of, the Manager, other than in connection with the Manager’s ordinary course of business as market maker, if the Manager is a market maker in the Common Stock.

(v) The compensation to the Manager for sales of the Shares under this Section 2(b) shall be a placement fee of 2% of the gross sales price of the Shares sold pursuant to this Section 2(b) (“Broker Fee”). The foregoing rate of compensation shall not apply when the Manager acts as principal, in which case the Company may sell Shares to the Manager as principal at a price agreed upon at the relevant Applicable Time pursuant to a Terms Agreement. The remaining proceeds, after deduction of the Broker Fee and deduction for any transaction fees imposed by any clearing firm, execution broker, or governmental or self-regulatory organization in respect of such sales, shall constitute the net proceeds to the Company for such Shares (the “Net Proceeds”).

(vi) The Manager shall provide written confirmation (which may be by facsimile or electronic mail) to the Company following the close of trading on the Trading Market each day in which the Shares are sold under this Section 2(b) setting forth the number of the Shares sold on such day, the aggregate gross sales proceeds and the Net Proceeds to the Company, and the compensation payable by the Company to the Manager with respect to such sales.

(vii) Upon delivery of a Sales Notice, the Company shall issue and deliver the maximum number of Shares to be sold pursuant to the Sales Notice to the Manager's account at The Depository Trust Company ("DTC") via the DWAC system, which Shares shall be deposited by the Manager in the Company's account with the Manager. The Manager shall have no obligation to attempt to sell the Shares until the Company has delivered the Shares to the Manager. Settlement for sales of the Shares pursuant to this Section 2(b) will occur at 10:00 a.m. (New York City time), or at such time as the Company and the Manager may mutually agree, on the third Business Day following delivery of the Shares issued pursuant to the Sale Notice (each such day, a "Settlement Date"). On each Settlement Date, the Manager shall deliver the Net Proceeds from the sale of the Shares to the Company. If on any Settlement Date not all Shares were sold as issued pursuant to the Sales Notice, then, at the election of and upon notice from the Company, the Shares shall be applied to a future Settlement Date or returned to the Company.

(viii) At each Applicable Time, Settlement Date, Representation Date and Filing Date, the Company shall be deemed to have affirmed each representation and warranty contained in this Agreement as if such representation and warranty were made as of such date, modified as necessary to relate to the Registration Statement and the Prospectus as amended as of such date. Any obligation of the Manager to use its commercially reasonable efforts to sell the Shares on behalf of the Company shall be subject to the continuing accuracy of the representations and warranties of the Company herein, to the performance by the Company of its obligations hereunder and to the continuing satisfaction of the additional conditions specified in Section 7 of this Agreement.

(c) Term Sales. If the Company wishes to sell the Shares pursuant to this Agreement but other than as set forth in Section 2(b) of this Agreement (each, a "Placement"), it will notify the Manager of the proposed terms of such Placement. If the Manager, acting as principal, wishes to accept such proposed terms (which it may decline to do for any reason in its sole discretion) or, following discussions with the Company wishes to accept amended terms, the Manager and the Company will enter into a Terms Agreement setting forth the terms of such Placement. The terms set forth in a Terms Agreement will not be binding on the Company or the Manager unless and until the Company and the Manager have each executed such Terms Agreement accepting all of the terms of such Terms Agreement. In the event of a conflict between the terms of this Agreement and the terms of a Terms Agreement, the terms of such Terms Agreement will control. A Terms Agreement may also specify certain provisions relating to the reoffering of such Shares by the Manager. The commitment of the Manager to purchase the Shares pursuant to any Terms Agreement shall be deemed to have been made on the basis of the representations and warranties of

the Company herein contained and shall be subject to the terms and conditions herein set forth. Each Terms Agreement shall specify the number of the Shares to be purchased by the Manager pursuant thereto, the price to be paid to the Company for such Shares, any provisions relating to rights of, and default by, underwriters acting together with the Manager in the reoffering of the Shares, and the time and date (each such time and date being referred to herein as a “Time of Delivery”) and place of delivery of and payment for such Shares. Such Terms Agreement shall also specify any requirements for opinions of counsel, accountants’ letters and officers’ certificates pursuant to Section 7 of this Agreement and any other information or documents required by the Manager.

(d) Maximum Number of Shares. Under no circumstances shall the Company cause or request the offer or sale of any Shares if, after giving effect to the sale of such Shares, the aggregate amount of Shares sold pursuant to this Agreement would exceed the lesser of (A) together with all sales of Shares under this Agreement, the Maximum Amount, (B) the amount available for offer and sale under the Registration Statement and (C) the amount authorized from time to time to be issued and sold under this Agreement by the Company’s board of directors, a duly authorized committee thereof or a duly authorized executive committee, and notified to the Manager in writing. Under no circumstances shall the Company cause or request the offer or sale of any Placement Shares pursuant to this Agreement at a price lower than the minimum price authorized from time to time by the Company’s board of directors, a duly authorized committee thereof or a duly authorized executive committee, and notified to the Manager in writing. Further, under no circumstances shall the Company cause or permit the aggregate offering amount of Placement Shares sold pursuant to this Agreement to exceed the Maximum Amount.

(e) Regulation M Notice. Unless the exceptive provisions set forth in Rule 101(c)(1) of Regulation M under the Exchange Act are satisfied with respect to the Shares, the Company shall give the Manager at least one Business Day’s prior notice of its intent to sell any Shares in order to allow the Manager time to comply with Regulation M.

3. Representations and Warranties. The Company represents and warrants to, and agrees with, the Manager at the Execution Time and on each such time the following representations and warranties are repeated or deemed to be made pursuant to this Agreement, as set forth below or in the Disclosure Package.

(a) Subsidiaries. All of the direct and indirect subsidiaries (individually, a “Subsidiary”) of the Company are set forth on Exhibit 21.1 to the Company’s most recent Annual Report on Form 10-K filed with the Commission. The Company owns, directly or indirectly, all of the capital stock or other equity interests of each Subsidiary free and clear of any “Liens” (which for purposes of this Agreement shall mean a lien, charge, security interest, encumbrance, right of first refusal, preemptive right or other restriction), and all the issued and

outstanding shares of capital stock of each Subsidiary are validly issued and are fully paid, non-assessable and free of preemptive and similar rights to subscribe for or purchase securities.

(b) Organization and Qualification. The Company and each of the Subsidiaries is an entity duly incorporated or otherwise organized, validly existing and in good standing under the laws of the jurisdiction of its incorporation or organization (as applicable), with the requisite power and authority to own and use its properties and assets and to carry on its business as currently conducted. Neither the Company nor any Subsidiary is in violation or default of any of the provisions of its respective certificate or articles of incorporation, bylaws or other organizational or charter documents. Each of the Company and the Subsidiaries is duly qualified to conduct business and is in good standing as a foreign corporation or other entity in each jurisdiction in which the nature of the business conducted or property owned by it makes such qualification necessary, except where the failure to be so qualified or in good standing, as the case may be, could not reasonably be expected to result in (i) a material adverse effect on the legality, validity or enforceability of this Agreement, (ii) a material adverse change in the results of operations, assets, business, prospects or condition (financial or otherwise) of the Company and the Subsidiaries, taken as a whole, from that set forth in the Disclosure Package, or (iii) a material adverse effect on the Company's ability to perform in any material respect on a timely basis its obligations under this Agreement (any of (i), (ii) or (iii), a "Material Adverse Effect") and no "Proceeding" (which for purposes of this Agreement shall mean any action, claim, suit, investigation or proceeding (including, without limitation, an investigation or partial proceeding, such as a deposition), whether commenced or threatened) has been instituted in any such jurisdiction revoking, limiting or curtailing or seeking to revoke, limit or curtail such power and authority or qualification.

(c) Authorization and Enforcement. The Company has the requisite corporate power and authority to enter into and to consummate the transactions contemplated by this Agreement and otherwise to carry out its obligations hereunder. The execution and delivery of this Agreement by the Company and the consummation by it of the transactions contemplated hereby have been duly authorized by all necessary action on the part of the Company and no further action is required by the Company, the Board or its stockholders in connection herewith other than in connection with the Required Approvals. This Agreement has been duly executed and delivered by the Company and constitutes the valid and binding obligation of the Company enforceable against the Company in accordance with its terms except (i) as limited by general equitable principles and applicable bankruptcy, insolvency, reorganization, moratorium and other laws of general application affecting enforcement of creditors' rights generally, (ii) as limited by laws relating to the availability of specific performance, injunctive relief or other equitable remedies and (iii) insofar as indemnification and contribution provisions of Section 8 hereof may be limited by applicable law and public policy considered in respect thereof.

(d) No Conflicts. The execution, delivery and performance of this Agreement by the Company, the issuance and sale of the Shares and the consummation by the Company of the other transactions contemplated herein do not and will not (i) conflict with or violate any provision of the Company's or any Subsidiary's certificate or articles of incorporation, bylaws or other organizational or charter documents, or (ii) conflict with, or constitute a default (or an event that with notice or lapse of time or both would become a default) under, result in the creation of any Lien upon any of the properties or assets of the Company or any Subsidiary, or give to others any rights of termination, amendment, acceleration or cancellation (with or without notice, lapse of time or both) of, any agreement, credit facility, debt or other instrument (evidencing a Company or Subsidiary debt or otherwise) or other understanding to which the Company or any Subsidiary is a party or by which any property or asset of the Company or any Subsidiary is bound or affected, or (iii) subject to the Required Approvals, conflict with or result in a violation of any law, rule, regulation, order, judgment, injunction, decree or other restriction of any court or governmental authority to which the Company or a Subsidiary is subject (including federal and state securities laws and regulations), or by which any property or asset of the Company or a Subsidiary is bound or affected, except in the case of each of clauses (ii) and (iii), such as could not reasonably be expected to result in a Material Adverse Effect.

(e) Filings, Consents and Approvals. The Company is not required to obtain any consent, waiver, authorization or order of, give any notice to, or make any filing or registration with, any court or other federal, state, local or other governmental authority or other "Person" (defined as an individual or corporation, partnership, trust, incorporated or unincorporated association, joint venture, limited liability company, joint stock company, government (or an agency or subdivision thereof) or other entity of any kind, including the Trading Market) in connection with the execution, delivery and performance by the Company of this Agreement, other than (i) the filings required by this Agreement, (ii) the filing with the Commission of the Prospectus Supplement, (iii) the filing of application(s) to and approval by the Trading Market for the listing of the Shares for trading thereon in the time and manner required thereby, and (iv) such filings as are required to be made under applicable state securities laws and the rules and regulations of the Financial Industry Regulatory Authority, Inc. ("FINRA") (collectively, the "Required Approvals").

(f) Issuance of Shares. The Shares are duly authorized and, when issued and paid for in accordance with this Agreement, will be duly and validly issued, fully paid and nonassessable, free and clear of all Liens imposed by the Company. The Company has reserved from its duly authorized capital stock the maximum number of shares of Common Stock issuable pursuant to this Agreement. The issuance by the Company of the Shares has been registered

under the Act and all of the Shares are freely transferable and tradable by the purchasers thereof without restriction (other than any restrictions arising solely from an act or omission of such a purchaser). The Shares are being issued pursuant to the Registration Statement and the issuance of the Shares has been registered by the Company under the Act. The “Plan of Distribution” section within the Registration Statement permits the issuance and sale of the Shares as contemplated by this Agreement. Upon receipt of the Shares, the purchasers of such Shares will have good and marketable title to such Shares and the Shares will be freely tradable on the Trading Market.

(g) Capitalization. The capitalization of the Company is as set forth in the Disclosure Package as of the dates reflected therein. The Company has not issued any capital stock since its most recently filed periodic report under the Exchange Act that has not been disclosed on a Current Report on Form 8-K, other than pursuant to the exercise of employee stock options under the Company’s stock incentive plans, the issuance of shares of Common Stock to employees pursuant to the Company’s employee stock purchase plan, the issuance of shares of Common Stock in settlement of restricted stock units outstanding, the issuance of Common Stock upon the exercise of warrants outstanding and disclosed in the Disclosure Package and pursuant to the conversion or exercise of securities exercisable, exchangeable or convertible into Common Stock (“Common Stock Equivalents”). No Person has any right of first refusal, preemptive right, right of participation, or any similar right to participate in the transactions contemplated by this Agreement. Except (i) pursuant to the Company’s stock incentive plans and (ii) pursuant to agreements or instruments described in or filed as exhibits to the Disclosure Package, there are no outstanding options, warrants, script rights to subscribe to, calls or commitments of any character whatsoever relating to, or securities, rights or obligations convertible into or exercisable or exchangeable for, or giving any Person any right to subscribe for or acquire, any shares of Common Stock, or contracts, commitments, understandings or arrangements by which the Company or any Subsidiary is or may become bound to issue additional shares of Common Stock or Common Stock Equivalents. The issuance and sale of the Shares will not obligate the Company to issue shares of Common Stock or other securities to any Person and will not result in a right of any holder of Company securities to adjust the exercise, conversion, exchange or reset price under such securities. All of the outstanding shares of capital stock of the Company are validly issued, fully paid and nonassessable, have been issued in compliance with all federal and state securities laws, and none of such outstanding shares was issued in violation of any preemptive rights or similar rights to subscribe for or purchase securities. Except as may be disclosed in the Disclosure Package, there are no stockholders agreements, voting agreements or other similar agreements with respect to the Company’s capital stock to which the Company is a party or, to the knowledge of the Company, between or among any of the Company’s stockholders.

(h) Registration Statement. The Company meets the requirements for use of Form S-3 under the Act and has prepared and will file, with the Commission the Registration Statement, including a related Base Prospectus, for registration under the Act of the offering and sale of the Shares. Such Registration Statement will be declared effective and available for the offer and sale of the Shares before the date of the first Placement. The Base Prospectus contains all information required by the Act and the rules thereunder, and, except to the extent the Manager shall agree in writing to a modification, shall be in all substantive respects in the form furnished to the Manager prior to the Execution Time or prior to any such time this representation is repeated or deemed to be made. The Registration Statement, at the Execution Time, each such time this representation is repeated or deemed to be made, and at all times during which a prospectus is required by the Act to be delivered (whether physically or through compliance with Rule 172, 173 or any similar rule) in connection with any offer or sale of the Shares, meets the requirements set forth in Rule 415(a)(1)(x). The initial Effective Date of the Registration Statement will be not earlier than the date three years before the Execution Time.

(i) Accuracy of Incorporated Documents. The Incorporated Documents, when they were filed with the Commission, conformed in all material respects to the requirements of the Exchange Act and the rules thereunder, and none of the Incorporated Documents, when they were filed with the Commission, contained any untrue statement of a material fact or omitted to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made not misleading; and any further documents so filed and incorporated by reference in the Registration Statement, the Base Prospectus, the Prospectus Supplement or the Prospectus, when such documents are filed with the Commission, will conform in all material respects to the requirements of the Exchange Act and the rules thereunder, as applicable, and will not contain any untrue statement of a material fact or omit to state a material fact necessary to make the statements therein, in light of the circumstances under which they were made, not misleading.

(j) Ineligible Issuer. (i) At the earliest time after the filing of the Registration Statement that the Company or another offering participant made a bona fide offer (within the meaning of Rule 164(h)(2)) of the Shares and (ii) as of the Execution Time and on each such time this representation is repeated or deemed to be made (with such date being used as the determination date for purposes of this clause (ii)), the Company was not and is not an Ineligible Issuer (as defined in Rule 405), without taking account of any determination by the Commission pursuant to Rule 405 that it is not necessary that the Company be considered an Ineligible Issuer.

(k) Free Writing Prospectus. The Company is eligible to use Issuer Free Writing Prospectuses. Each Issuer Free Writing Prospectus does not include any information the substance of which conflicts with the information contained

in the Registration Statement, including any Incorporated Documents and any prospectus supplement deemed to be a part thereof that has not been superseded or modified; and each Issuer Free Writing Prospectus does not contain any untrue statement of a material fact or omit to state any material fact necessary in order to make the statements therein, in the light of the circumstances under which they were made, not misleading. The foregoing sentence does not apply to statements in or omissions from any Issuer Free Writing Prospectus based upon and in conformity with written information furnished to the Company by the Manager specifically for use therein. Any Issuer Free Writing Prospectus that the Company is required to file pursuant to Rule 433(d) has been, or will be, filed with the Commission in accordance with the requirements of the Act and the rules thereunder. Each Issuer Free Writing Prospectus that the Company has filed, or is required to file, pursuant to Rule 433(d) or that was prepared by or behalf of or used by the Company complies or will comply in all material respects with the requirements of the Act and the rules thereunder. The Company will not, without the prior consent of the Manager, prepare, use or refer to, any Issuer Free Writing Prospectuses.

(l) Proceedings Related to Registration Statement. The Registration Statement is not the subject of a pending proceeding or examination under Section 8(d) or 8(e) of the Act, and the Company is not the subject of a pending proceeding under Section 8A of the Act in connection with the offering of the Shares. The Company has not received any notice that the Commission has issued or intends to issue a stop-order with respect to the Registration Statement or that the Commission otherwise has suspended or withdrawn the effectiveness of the Registration Statement, either temporarily or permanently, or to the knowledge of the Company, intends or has threatened in writing to do so.

(m) SEC Reports. Except with respect to Quarterly Reports on Form 10-Q for the periods ended March 31, 2015 and June 30, 2015 and the Annual Report on Form 10-K for the year ended December 31, 2014 and any schedules, forms, statements and other documents required to be filed therewith, the Company has complied in all material respects with requirements to file all reports, schedules, forms, statements and other documents required to be filed by it under the Act and the Exchange Act, including pursuant to Section 13(a) or 15(d) thereof, for the two years preceding the date hereof (or such shorter period as the Company was required by law to file such material) (the foregoing materials, including the exhibits thereto and documents incorporated by reference therein, being collectively referred to herein as the “SEC Reports”) on a timely basis or has received a valid extension of such time of filing and has filed any such SEC Reports prior to the expiration of any such extension.

(n) Financial Statements. The consolidated financial statements incorporated by reference in the Registration Statement, the Prospectus or the Incorporated Documents and any amendments thereof or supplements thereto comply in all material respects with applicable accounting requirements and the

rules and regulations of the Commission with respect thereto as in effect at the time of filing or as amended or corrected in a subsequent filing. Such financial statements have been prepared in accordance with United States generally accepted accounting principles applied on a consistent basis during the periods involved (“GAAP”), except (i) such adjustments to accounting standards and practices as may be otherwise specified in such financial statements or the notes thereto, (ii) in the case of unaudited financial statements to the extent such financial statements may not contain all footnotes required by GAAP or may be condensed or summary statements and (iii) such adjustments which will not be material, either individually or in the aggregate, and fairly present in all material respects the financial position of the Company and its consolidated subsidiaries as of and for the dates thereof and the results of operations and cash flows for the periods then ended, subject, in the case of unaudited statements, to normal, immaterial, year-end audit adjustments.

(o) Accountants. The Company’s accountants are Ernst & Young LLP. To the knowledge of the Company, such accountants, who the Company expects will express their opinion with respect to the financial statements to be included in the Company’s next Annual Report on Form 10-K, are a registered public accounting firm as required by the Act.

(p) Material Adverse Events. Since the date of the latest audited financial statements included within the SEC Reports, except as specifically disclosed in a subsequent SEC Report filed prior to the date hereof or in a Representation Date certificate furnished in accordance with Section 4(k) hereof, (i) there has been no event, occurrence or development that has had or that could reasonably be expected to result in a Material Adverse Effect, (ii) the Company has not incurred any liabilities (contingent or otherwise) other than (A) trade payables and accrued expenses incurred in the ordinary course of business consistent with past practice and (B) liabilities not required to be reflected in the Company’s financial statements pursuant to GAAP or required to be disclosed in filings made with the Commission, (iii) the Company has not altered its method of accounting, (iv) the Company has not declared or made any dividend or distribution of cash or other property to its stockholders or purchased, redeemed or made any agreements to purchase or redeem any shares of its capital stock and (v) the Company has not issued any equity securities to any officer, director or “Affiliate” (defined as any Person that, directly or indirectly through one or more intermediaries, controls or is controlled by or is under common control with a Person, as such terms are used in and construed under Rule 144 under the Act), except (i) pursuant to existing Company stock incentive plans or (ii) as otherwise publicly reported or announced. The Company does not have pending before the Commission any request for confidential treatment of information. No event, liability or development has occurred or exists with respect to the Company or its Subsidiaries or their respective business, properties, operations or financial condition, that would be required to be disclosed by the Company under applicable securities laws at the time this representation is deemed made that has not been publicly disclosed at least 1 Trading Day prior to the date that this representation is deemed made.

(q) Litigation. Except as disclosed in the Disclosure Package, there is no action, suit, inquiry, notice of violation, Proceeding or investigation pending or, to the knowledge of the Company, threatened against or affecting the Company, any Subsidiary or any of their respective properties before or by any court, arbitrator, governmental or administrative agency or regulatory authority (federal, state, county, local or foreign) (collectively, an “Action”) which (i) adversely affects or challenges the legality, validity or enforceability of this Agreement or the Shares or (ii) could, if there were an unfavorable decision, reasonably be expected to result in a Material Adverse Effect, except as disclosed in the Disclosure Package. Except as disclosed in the Disclosure Package, neither the Company nor any Subsidiary, nor, to the knowledge of the Company, any director or officer thereof, is or has been the subject of any Action involving a claim of violation of or liability under federal or state securities laws or a claim of breach of fiduciary duty. Except as disclosed in the Disclosure Package, there has not been, and to the knowledge of the Company, there is not pending or contemplated, any investigation by the Commission involving the Company or any current or former director or officer of the Company. The Commission has not issued any stop order or other order suspending the effectiveness of any registration statement filed by the Company or any Subsidiary under the Exchange Act or the Act.

(r) Labor Relations. No material labor dispute exists or, to the knowledge of the Company, is imminent with respect to any of the employees of the Company which could reasonably be expected to result in a Material Adverse Effect. None of the Company’s or its Subsidiaries’ employees is a member of a union that relates to such employee’s relationship with the Company, and neither the Company nor any of its Subsidiaries is a party to a collective bargaining agreement, and the Company and its Subsidiaries believe that their relationships with their employees are good. No executive officer, to the knowledge of the Company, is, or is now expected to be, in violation of any material term of any employment contract, confidentiality, disclosure or proprietary information agreement or non-competition agreement, or any other contract or agreement or any restrictive covenant, and the continued employment of each such executive officer does not subject the Company or any of its Subsidiaries to any liability with respect to any of the foregoing matters. The Company and its Subsidiaries are in compliance with all applicable U.S. federal, state, local and foreign laws and regulations relating to employment and employment practices, terms and conditions of employment and wages and hours, except where the failure to be in compliance could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(s) No Existing Defaults. Neither the Company nor any Subsidiary (i) is in default under or in violation of (and no event has occurred that has not been

waived that, with notice or lapse of time or both, would result in a default by the Company or any Subsidiary under), nor has the Company or any Subsidiary received notice of a claim that it is in default under or that it is in violation of, any indenture, loan or credit agreement or any other agreement or instrument to which it is a party or by which it or any of its properties is bound (except for such defaults or violations that have been waived), (ii) is in violation of any order of any court, arbitrator or governmental body, or (iii) is or has been in violation of any statute, rule or regulation of any governmental authority, including without limitation all foreign, federal, state and local laws relating to taxes, environmental protection, occupational health and safety, product quality and safety and employment and labor matters, except in each case as could not reasonably be expected to result in a Material Adverse Effect or as have been disclosed in the Disclosure Package.

(t) Regulatory Permits. The Company and the Subsidiaries possess all certificates, authorizations and permits issued by the appropriate federal, state, local or foreign regulatory authorities, including, without limitation, the Environmental Protection Agency, necessary to conduct their respective businesses as described in the Disclosure Package, except where the failure to possess such permits could not reasonably be expected to result in a Material Adverse Effect (“Material Permits”), and neither the Company nor any Subsidiary has received any notice of proceedings relating to the revocation or modification of any Material Permit. For clarity, the Company has not received the approval of any regulatory agency to market any of its product candidates.

(u) Title to Assets. Except as described in the Disclosure Package, the Company and its Subsidiaries do not own any real property and the Company and its Subsidiaries have good and marketable title in all tangible personal property owned by them that is material to the business of the Company and the Subsidiaries, taken as a whole, in each case free and clear of all Liens, except for Liens as are disclosed in the Disclosure Package or as do not materially affect the value of such property and do not materially interfere with the use made and proposed to be made of such property by the Company and the Subsidiaries and Liens for the payment of federal, state or other taxes, the payment of which is neither delinquent nor subject to penalties. Any real property and facilities held under lease by the Company and the Subsidiaries are held by them under valid, subsisting and enforceable leases of which the Company and the Subsidiaries are in compliance, except where such non-compliance would not reasonably be expected to have a Material Adverse Effect.

(v) Intellectual Property. The Company and the Subsidiaries have, or have rights to use, all patents, patent applications, trademarks, trademark applications, service marks, trade names, trade secrets, inventions, copyrights, licenses and other similar intellectual property rights necessary or material for use in connection with their respective businesses as described in the Disclosure Package and which the failure to so have could reasonably be expected to have a

Material Adverse Effect (collectively, the “Intellectual Property Rights”). Neither the Company nor any Subsidiary has received, since the date of the latest audited financial statements included within the SEC Reports, a notice (written or otherwise) that the Intellectual Property Rights violate or infringe upon the rights of any Person, except as would not have a Material Adverse Effect. To the knowledge of the Company, all such Intellectual Property Rights are enforceable (other than patent and trademark applications) and there is no existing infringement by another Person of any of the Intellectual Property Rights. The Company and its Subsidiaries have taken reasonable security measures to protect the secrecy, confidentiality and value of all of their Intellectual Property Rights, except where failure to do so could not, individually or in the aggregate, reasonably be expected to have a Material Adverse Effect.

(w) Insurance. The Company and the Subsidiaries are insured by insurers of recognized financial responsibility against such losses and risks and in such amounts as are prudent and customary for companies of similar size as the Company in the businesses in which the Company and the Subsidiaries are engaged, including, but not limited to, directors and officers insurance coverage. To the knowledge of the Company, such insurance contracts and policies are accurate and complete. Neither the Company nor any Subsidiary has any reason to believe that it will not be able to renew its existing insurance coverage as and when such coverage expires or to obtain similar coverage from similar insurers as may be necessary to continue its business without a significant increase in cost.

(x) Affiliate Transactions. Except as set forth in the Disclosure Package, none of the officers or directors of the Company and, to the knowledge of the Company, none of the employees of the Company is presently a party to any transaction with the Company or any Subsidiary (other than for services as employees, officers and directors), including any contract, agreement or other arrangement providing for the furnishing of services to or by, providing for rental of real or personal property to or from, or otherwise requiring payments to or from any officer, director or such employee or, to the knowledge of the Company, any entity in which any officer, director, or any such employee has a substantial interest or is an officer, director, trustee or partner, in each case in excess of \$120,000, other than (i) for payment of salary or consulting fees for services rendered, (ii) reimbursement for expenses incurred on behalf of the Company and (iii) for other employee benefits, including stock option agreements under any stock option plan of the Company.

(y) Sarbanes Oxley Compliance. Except as disclosed in the Disclosure Package, the Company is in material compliance with all provisions of the Sarbanes-Oxley Act of 2002 which are applicable to it as of the Effective Date.

(z) Finder’s Fees. Other than payments to be made to the Manager, no brokerage or finder’s fees or commissions are or will be payable by the Company to any broker, financial advisor or consultant, finder, placement agent, investment

banker, bank or other Person with respect to the transactions contemplated by this Agreement. The Manager shall have no obligation with respect to any fees or with respect to any claims made by or on behalf of other Persons for fees of a type contemplated in this Section that may be due in connection with the transactions contemplated by this Agreement.

(aa) No Other Sales Agency Agreement. The Company has not entered into any other sales agency agreements or other similar arrangements with any agent or any other representative in respect of at the market offerings of the Shares.

(bb) Regulation M Compliance. The Company has not, and to its knowledge no one acting on its behalf has, (i) taken, directly or indirectly, any action designed to cause or to result in the stabilization or manipulation of the price of any security of the Company to facilitate the sale or resale of any of the Shares, (ii) sold, bid for, purchased, or paid any compensation for soliciting purchases of, any of the Shares or (iii) paid or agreed to pay to any person any compensation for soliciting another to purchase any other securities of the Company, other than, in the case of clauses (ii) and (iii), compensation paid to the Manager in connection with the placement of the Shares.

(cc) Listing and Maintenance Requirements. The issuance and sale of the Shares as contemplated in this Agreement does not contravene the rules and regulations of the Trading Market. The Common Stock is registered pursuant to Section 12(b) or 12(g) of the Exchange Act, and the Company has taken no action designed to, or which to its knowledge is likely to have the effect of, terminating the registration of the Common Stock under the Exchange Act nor has the Company received any notification that the Commission is contemplating terminating such registration. Except as disclosed in the Disclosure Package, the Company has not, in the 12 months preceding the date hereof, received notice from any Trading Market on which the Common Stock is or has been listed or quoted to the effect that the Company is not in compliance with the listing or maintenance requirements of such Trading Market.

(dd) Investment Company. The Company is not, and is not an Affiliate of, and immediately after receipt of payment for the Shares, will not be or be an Affiliate of, an “investment company” within the meaning of the Investment Company Act of 1940, as amended. The Company currently intends to conduct its business in a manner so that it will not become subject to the Investment Company Act of 1940, as amended.

(ee) Tax Status. Except for matters that would not, individually or in the aggregate, have or reasonably be expected to result in a Material Adverse Effect, the Company and each Subsidiary have has made or filed all necessary United States federal, and state income and all foreign income and franchise tax returns and have paid or accrued all taxes shown as due thereon and are not being

contested in good faith, and the Company has no knowledge of a tax deficiency which has been asserted or threatened against the Company or, reports and declarations required by any jurisdiction to which it is subject, (ii) has paid all taxes and other governmental assessments and charges that are material in amount, shown or determined to be due on such returns, reports and declarations and (iii) has set aside on its books provision reasonably adequate for the payment of all material taxes for periods subsequent to the periods to which such returns, reports or declarations apply. There are no unpaid taxes in any material amount claimed to be due by the taxing authority of any jurisdiction, and the officers of the Company or of any Subsidiary know of no basis for any such claim.

(ff) Foreign Corrupt Practices. Neither the Company, nor to the knowledge of the Company, any agent or other person acting on behalf of the Company, has (i) directly or indirectly, used any funds for unlawful contributions, gifts, entertainment or other unlawful expenses related to foreign or domestic political activity, (ii) made any unlawful payment to foreign or domestic government officials or employees or to any foreign or domestic political parties or campaigns from corporate funds, (iii) failed to disclose fully any contribution made by the Company (or made by any person acting on its behalf of which the Company is aware) which is in violation of law, or (iv) violated in any material respect any provision of the Foreign Corrupt Practices Act of 1977, as amended.

(gg) FINRA Member Shareholders. There are no affiliations with any FINRA member firm among the Company's officers, directors or, to the actual knowledge of the Company without investigation, any five percent (5%) or greater stockholder of the Company, except as set forth in the Disclosure Package.

4. Agreements. The Company agrees with the Manager that:

(a) Right to Review Amendments and Supplements to Registration Statement and Prospectus. During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172, 173 or any similar rule) to be delivered under the Act in connection with the offering or the sale of Shares, the Company will not file any amendment to the Registration Statement or supplement relating to the Shares (including any Prospectus Supplement relating to the Shares) to the Base Prospectus unless the Company has furnished to the Manager a copy for its review prior to filing and will not file any such proposed amendment or supplement to which the Manager reasonably objects. The Company has properly completed the Prospectus, in a form approved by the Manager, and filed such Prospectus, as amended at the Execution Time, with the Commission pursuant to the applicable paragraph of Rule 424(b) by the Execution Time and will cause any supplement to the Prospectus to be properly completed, in a form approved by the Manager, and will file such supplement with the Commission pursuant to the applicable paragraph of Rule 424(b) within the time period prescribed thereby and will provide evidence reasonably

satisfactory to the Manager of such timely filing. The Company will promptly advise the Manager (i) when the Prospectus, and any supplement thereto, shall have been filed (if required) with the Commission pursuant to Rule 424(b), (ii) when, during any period when the delivery of a prospectus (whether physically or through compliance with Rule 172, 173 or any similar rule) is required under the Act in connection with the offering or sale of the Shares, any amendment to the Registration Statement shall have been filed or become effective (other than any annual report of the Company filed pursuant to Section 13(a) or 15(d) of the Exchange Act), (iii) of any request by the Commission or its staff for any amendment of the Registration Statement, or any Rule 462(b) Registration Statement, or for any supplement to the Prospectus or for any additional information, (iv) of the issuance by the Commission of any stop order suspending the effectiveness of the Registration Statement or of any notice objecting to its use or the institution or threatening of any proceeding for that purpose and (v) of the receipt by the Company of any notification with respect to the suspension of the qualification of the Shares for sale in any jurisdiction or the institution or threatening of any proceeding for such purpose. The Company will use its commercially reasonable efforts to prevent the issuance of any such stop order or the occurrence of any such suspension or objection to the use of the Registration Statement and, upon such issuance, occurrence or notice of objection, to obtain as soon as possible the withdrawal of such stop order or relief from such occurrence or objection, including, if necessary, by filing an amendment to the Registration Statement or a new registration statement and using its commercially reasonable efforts to have such amendment or new registration statement declared effective as soon as practicable.

(b) Subsequent Events. If, at any time on or after an Applicable Time but prior to the related Settlement Date, any event occurs as a result of which the Registration Statement or Prospectus would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements therein in the light of the circumstances under which they were made or the circumstances then prevailing not misleading, the Company will (i) notify promptly the Manager so that any use of the Registration Statement or Prospectus may cease until such are amended or supplemented; (ii) amend or supplement the Registration Statement or Prospectus to correct such statement or omission; and (iii) supply any amendment or supplement to the Manager in such quantities as the Manager may reasonably request; provided, however, that the Company may delay the filing of any amendment or supplement if in the judgment of the Company, it is in the best interests of the Company to do so.

(c) Notification of Subsequent Filings. During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172, 173 or any similar rule) to be delivered under the Act, any event occurs as a result of which the Prospectus as then supplemented would include any untrue statement of a material fact or omit to state any material fact necessary to make the statements

therein in the light of the circumstances under which they were made at such time not misleading, or if it shall be necessary to amend the Registration Statement, file a new registration statement or supplement the Prospectus to comply with the Act or the Exchange Act or the respective rules thereunder, including in connection with use or delivery of the Prospectus, the Company promptly will (i) notify the Manager of any such event, (ii) subject to Section 4(a), prepare and file with the Commission an amendment or supplement or new registration statement which will correct such statement or omission or effect such compliance, (iii) use its commercially reasonable efforts to have any amendment to the Registration Statement or new registration statement declared effective as soon as practicable in order to avoid any disruption in use of the Prospectus and (iv) supply any supplemented Prospectus to the Manager in such quantities as the Manager may reasonably request.

(d) Earnings Statements. As soon as practicable, the Company will make generally available to its security holders and to the Manager an earnings statement or statements of the Company and its Subsidiaries which will satisfy the provisions of Section 11(a) of the Act and Rule 158.

(e) Delivery of Registration Statement. Upon the request of the Manager, the Company will furnish to the Manager and counsel for the Manager, without charge, signed copies of the Registration Statement (including exhibits thereto) and, so long as delivery of a prospectus by the Manager or dealer may be required by the Act (including in circumstances where such requirement may be satisfied pursuant to Rule 172, 173 or any similar rule), as many copies of the Prospectus and each Issuer Free Writing Prospectus and any supplement thereto as the Manager may reasonably request. The Company will pay the expenses of printing or other production of all documents relating to the offering.

(f) Qualification of Shares. The Company will arrange, if necessary, for the qualification of the Shares for sale under the laws of such jurisdictions as the Manager may designate and will maintain such qualifications in effect so long as required for the distribution of the Shares; provided that in no event shall the Company be obligated to qualify to do business in any jurisdiction where it is not now so qualified or to take any action that would subject it to service of process in suits, other than those arising out of the offering or sale of the Shares, in any jurisdiction where it is not now so subject.

(g) Free Writing Prospectus. The Company agrees that, unless it has or shall have obtained the prior written consent of the Manager, and the Manager agrees with the Company that, unless it has or shall have obtained, as the case may be, the prior written consent of the Company, it has not made and will not make any offer relating to the Shares that would constitute an Issuer Free Writing Prospectus or that would otherwise constitute a “free writing prospectus” (as defined in Rule 405) required to be filed by the Company with the Commission or retained by the Company under Rule 433. Any such free writing prospectus

consented to by the Manager or the Company is hereinafter referred to as a “ Permitted Free Writing Prospectus.” The Company agrees that (i) it has treated and will treat, as the case may be, each Permitted Free Writing Prospectus as an Issuer Free Writing Prospectus and (ii) it has complied and will comply, as the case may be, with the requirements of Rules 164 and 433 applicable to any Permitted Free Writing Prospectus, including in respect of timely filing with the Commission, legending and record keeping.

(h) Subsequent Equity Issuances. Neither the Company nor any Subsidiary will offer, sell, issue, contract to sell, contract to issue or otherwise dispose of, directly or indirectly, any other shares of Common Stock or any Common Stock Equivalents (other than the Shares) during the term of this Agreement without giving the Manager at least three Business Days’ prior written notice specifying the nature of the proposed transaction and the date of such proposed transaction. Upon receipt of such notice, the Manager shall as soon as practicable suspend acting under this Agreement for such period of time requested by the Company or as deemed appropriate by the Manager in light of the proposed transaction. Notwithstanding anything herein to the contrary, the Company may issue and sell Common Stock or Common Stock Equivalents without providing notice to the Manager (i) pursuant to any employee stock incentive plan, stock ownership plan or employee stock purchase plan of the Company in effect at the Execution Time or any compensatory inducement grants made by the Company and approved by the Board consistent with past practice, (ii) upon the conversion or exercise of Common Stock Equivalents outstanding at the Execution Time or (iii) upon the conversion or exercise of any Common Stock Equivalents outstanding that are subsequently disclosed in any Incorporated Documents if such exercise or conversion would not be integrated into an offering of the Shares.

(i) Market Manipulation. Until the termination of this Agreement, the Company will not take, directly or indirectly, any action designed to or that would constitute or that might reasonably be expected to cause or result in, under the Exchange Act or otherwise, stabilization or manipulation in violation of the Act, Exchange Act or the rules and regulations thereunder of the price of any security of the Company to facilitate the sale or resale of the Shares or otherwise violate any provision of Regulation M under the Exchange Act.

(j) Notification of Incorrect Certificate. The Company will, at any time during the term of this Agreement, as supplemented from time to time, advise the Manager immediately after it shall have received notice or obtained knowledge thereof, of any information or fact that would alter or affect any opinion, certificate, letter and other document provided to the Manager pursuant to Section 7 herein.

(k) Certification of Accuracy of Disclosure. Upon (i) the commencement of the offering of the Shares under this Agreement, (ii) each time

that the Company is then-offering Shares under this Agreement and the Registration Statement or Prospectus shall be amended or supplemented, other than by means of Incorporated Documents, (iii) the Company is then-offering Shares under this Agreement and files its Annual Report on Form 10-K under the Exchange Act, (iv) the Company is then-offering Shares and files a Quarterly Report on Form 10-Q under the Exchange Act, (v) the Company is then-offering Shares under this Agreement and files a Current Report on Form 8-K containing amended financial information (other than information that is furnished and not filed), if the Manager reasonably determines that the information in such Form 8-K is material, or (vi) the Shares are delivered to the Manager as principal at the Time of Delivery pursuant to a Terms Agreement (such commencement or recommencement date and each such date referred to in (i), (ii), (iii), (iv), (v) and (vi) above, a “Representation Date”), unless waived by the Manager, the Company shall furnish or cause to be furnished to the Manager forthwith a certificate dated and delivered on the Representation Date, in form reasonably satisfactory to the Manager to the effect that the statements contained in the certificate referred to in Section 7 of this Agreement which were last furnished to the Manager are true and correct at the Representation Date, as though made at and as of such date (except that such statements shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented to such date) or, in lieu of such certificate, a certificate of the same tenor as the certificate referred to in said Section 7, modified as necessary to relate to the Registration Statement and the Prospectus as amended and supplemented to the date of delivery of such certificate.

(l) Bring Down Opinions; Negative Assurance. At each Representation Date, unless waived by the Manager, the Company shall furnish or cause to be furnished forthwith to the Manager and to counsel to the Manager a written opinion of counsel to the Company (“Company Counsel”) addressed to the Manager and dated and delivered on such Representation Date, in form and substance reasonably satisfactory to the Manager, including a negative assurance representation.

(m) Auditor Bring Down “Comfort” Letter. At each Representation Date, unless waived by the Manager, the Company shall cause (1) the Company’s auditors (the “Accountants”), or other independent accountants satisfactory to the Manager forthwith to furnish the Manager a letter, and (2) the Chief Financial Officer of the Company forthwith to furnish the Manager a certificate, in each case dated on such Representation Date, in form satisfactory to the Manager, of the same tenor as the letters and certificate referred to in Section 7 of this Agreement but modified to relate to the Registration Statement and the Prospectus, as amended and supplemented to the date of such letters and certificate; provided, however, that the Company will not be required to cause the Accountants to furnish such letters to the Manager in connection with the filing of a Current Report on Form 8-K unless (i) such Current Report on Form 8-K is filed at any time during which a prospectus relating to the Shares is required to be delivered under the Act and (ii) the Manager has requested such letter based upon the event or events reported in such Current Report on Form 8-K.

(n) Due Diligence Session. Upon commencement of the offering of the Shares under this Agreement (and upon the recommencement of the offering of the Shares under this Agreement following the termination of a suspension of sales hereunder lasting more than 30 trading days), and at each Representation Date, the Company will conduct a due diligence session, in form and substance, reasonably satisfactory to the Manager, which shall include representatives of management and Accountants. The Company shall cooperate timely with any reasonable due diligence request from or review conducted by the Manager or its agents from time to time in connection with the transactions contemplated by this Agreement, including, without limitation, providing information and available documents and access to appropriate corporate officers and the Company's agents during regular business hours and at the Company's principal offices, and timely furnishing or causing to be furnished such certificates, letters and opinions from the Company, its officers and its agents, as the Manager may reasonably request. The Company shall reimburse the Manager for Manager's counsel's time in each such due diligence update session, up to a maximum of \$2,500 per update, plus any incidental expense incurred by the Manager in connection therewith.

(o) Acknowledgment of Trading. The Company acknowledges that the Manager may trade in the Common Stock for the Manager's own account and for the account of its clients at the same time as sales of the Shares occur pursuant to this Agreement or pursuant to a Terms Agreement.

(p) Disclosure of Shares Sold. The Company will disclose in its Annual Reports on Form 10-K and Quarterly Reports on Form 10-Q, as applicable, the number of Shares sold through the Manager under this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to sales of Shares pursuant to this Agreement during the relevant quarter; and, if required by any subsequent change in Commission policy or request, more frequently by means of a Current Report on Form 8-K or a further Prospectus Supplement.

(q) Rescission Right. If to the knowledge of the Company, the conditions set forth in Section 7 shall not have been satisfied as of the applicable Settlement Date, the Company will offer to any person who has agreed to purchase Shares from the Company as the result of an offer to purchase solicited by the Manager the right to refuse to purchase and pay for such Shares.

(r) Bring Down of Representations and Warranties. Each acceptance by the Company of an offer to purchase the Shares hereunder, and each execution and delivery by the Company of a Terms Agreement, shall be deemed to be an affirmation to the Manager that the representations and warranties of the Company contained in or made pursuant to this Agreement are true and correct as

of the date of such acceptance or of such Terms Agreement as though made at and as of such date, and an undertaking that such representations and warranties will be true and correct as of the Settlement Date for the Shares relating to such acceptance or as of the Time of Delivery relating to such sale, as the case may be, as though made at and as of such date (except that such representations and warranties shall be deemed to relate to the Registration Statement and the Prospectus as amended and supplemented relating to such Shares).

(s) Reservation of Shares. The Company shall ensure that there are at all times sufficient shares of Common Stock to provide for the issuance, free of any preemptive rights, out of its authorized but unissued shares of Common Stock or shares of Common Stock held in treasury, of the maximum aggregate number of Shares authorized for issuance by the Board pursuant to the terms of this Agreement. The Company will use its commercially reasonable efforts to cause the Shares to be listed for trading on the Trading Market and to maintain such listing.

(t) Obligation Under Exchange Act. During any period when the delivery of a prospectus relating to the Shares is required (including in circumstances where such requirement may be satisfied pursuant to Rule 172, 173 or any similar rule) to be delivered under the Act, the Company will file all documents required to be filed with the Commission pursuant to the Exchange Act within the time periods required by the Exchange Act and the regulations thereunder.

(u) DTC Facility. The Company shall cooperate with Manager and use its reasonable efforts to permit the Shares to be eligible for clearance and settlement through the facilities of DTC.

(v) Use of Proceeds. The Company will apply the Net Proceeds from the sale of the Shares in the manner set forth in the Prospectus.

(w) Filing of Prospectus Supplement. On or prior to the earlier of (i) the date on which the Company shall file a Quarterly Report on Form 10-Q or an Annual Report on Form 10-K in respect of any fiscal quarter in which sales of Shares were made by the Manager pursuant to Section 2(b) of this Agreement and (ii) the date on which the Company shall be obligated to file such document referred to in clause (i) in respect of such quarter (each such date, and any date on which an amendment to any such document is filed, a “Filing Date”), the Company will file a prospectus supplement with the Commission under the applicable paragraph of Rule 424(b), which prospectus supplement will set forth, with regard to such quarter, the number of the Shares sold through the Manager as agent pursuant to Section 2(b) of this Agreement, the Net Proceeds to the Company and the compensation paid by the Company with respect to such sales of the Shares pursuant to Section 2(b) of this Agreement and deliver such number of copies of each such prospectus supplement to the Trading Market as are

required by such exchange. The Company may satisfy such disclosure requirement by including such information in a Quarterly Report on Form 10-Q or on an Annual Report on 10-K. In the event any sales are made pursuant to this Agreement which are NOT made in “at the market” offerings as defined in Rule 415, including, without limitation, any Placement pursuant to a Terms Agreement, the Company shall file a Prospectus Supplement describing the terms of such transaction, the amount of Shares sold, the price thereof, the Manager’s compensation, and such other information as may be required pursuant to Rule 424 and Rule 430B, as applicable, within the time required by Rule 424.

(x) Additional Registration Statement. To the extent that the Registration Statement is not available for the sales of the Shares as contemplated by this Agreement, the Company shall file a new registration statement with respect to any additional shares of Common Stock necessary to complete such sales of the Shares and shall use commercially reasonable efforts to cause such registration statement to become effective as promptly as practicable. After the effectiveness of any such registration statement, all references to “Registration Statement” included in this Agreement shall be deemed to include such new registration statement, including all documents incorporated by reference therein pursuant to Item 12 of Form S-3, and all references to “Base Prospectus” included in this Agreement shall be deemed to include the final form of prospectus, including all documents incorporated therein by reference, included in any such registration statement at the time such registration statement became effective.

5. Payment of Expenses. The Company agrees to pay the costs and expenses incident to the performance of its obligations under this Agreement, whether or not the transactions contemplated hereby are consummated, including without limitation: (i) the preparation, printing or reproduction and filing with the Commission of the Registration Statement (including financial statements and exhibits thereto), the Prospectus and each Issuer Free Writing Prospectus, and each amendment or supplement to any of them; (ii) the printing (or reproduction) and delivery (including postage, air freight charges and charges for counting and packaging) of such copies of the Registration Statement, the Prospectus, and each Issuer Free Writing Prospectus, and all amendments or supplements to any of them, as may, in each case, be reasonably requested for use in connection with the offering and sale of the Shares; (iii) the preparation, printing, authentication, issuance and delivery of certificates for the Shares, including any stamp or transfer taxes in connection with the original issuance and sale of the Shares; (iv) the printing (or reproduction) and delivery of this Agreement, any blue sky memorandum and all other agreements or documents printed (or reproduced) and delivered in connection with the offering of the Shares; (v) the registration of the Shares under the Exchange Act, if applicable, and the listing of the Shares on the Trading Market; (vi) any registration or qualification of the Shares for offer and sale under the securities or blue sky laws of the several states (including filing fees and the reasonable fees and expenses of counsel for the Manager relating to such registration and qualification); (vii) the transportation and other expenses incurred by or on behalf of Company representatives in connection with presentations to prospective purchasers of the Shares; (viii) the fees and expenses of the

Company's accountants and the fees and expenses of counsel (including local and special counsel) for the Company; (ix) the filing fee under FINRA Rule 5110; (x) the fees and expenses of the Manager's counsel, equal to \$50,000 (excluding the periodic due diligence fees provided for under Section 4(n)); (xi) initial due diligence fees of the Manager in the amount of \$10,000; and (xii) all other costs and expenses incident to the performance by the Company of its obligations hereunder.

6. Representations and Covenants of Manager. Manager represents and warrants that it is duly registered as a broker-dealer under FINRA, the Exchange Act and the applicable statutes and regulations of each state in which the Shares will be offered and sold, except such states in which the Manager is exempt from registration or such registration is not otherwise required. Manager shall continue, for the term of this Agreement, to be duly registered as a broker-dealer under FINRA, the Exchange Act and the applicable statutes and regulations of each state in which the Shares will be offered and sold, except such states in which the Manager is exempt from registration or such registration is not otherwise required, during the term of this Agreement. Manager will comply with all applicable law and regulations in connection with the Shares, including but not limited to Regulation M.

7. Conditions to the Obligations of the Manager. The obligations of the Manager under this Agreement and any Terms Agreement shall be subject to (i) the accuracy of the representations and warranties on the part of the Company contained herein as of the Execution Time, each Representation Date, and as of each Applicable Time, Settlement Date and Time of Delivery, (ii) to the performance by the Company of its obligations hereunder and (iii) the following additional conditions:

(a) Filing of Prospectus Supplement. The Prospectus, and any supplement thereto, required by Rule 424 to be filed with the Commission have been filed in the manner and within the time period required by Rule 424(b) with respect to any sale of Shares; each Prospectus Supplement shall have been filed in the manner required by Rule 424(b) within the time period required hereunder and under the Act; any other material required to be filed by the Company pursuant to Rule 433(d) under the Act, shall have been filed with the Commission within the applicable time periods prescribed for such filings by Rule 433; and no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use shall have been issued and no proceedings for that purpose shall have been instituted or threatened.

(b) Delivery of Opinion. The Company shall have caused the Company Counsel to furnish to the Manager, requested by the Manager and upon reasonable advance notice in connection with any offering of the Shares, its opinion and negative assurance statement, dated as of such date and addressed to the Manager in form and substance acceptable to the Manager.

(c) Delivery of Officer's Certificate. The Company shall have furnished or caused to be furnished to the Manager, to the extent requested by the Manager and upon reasonable advance notice in connection with any offering of

the Shares, a certificate of the Company signed by the Chief Executive Officer or the President and the principal financial or accounting officer of the Company, dated as of such date, to the effect that the signers of such certificate have carefully examined the Disclosure Package and any documents incorporated by reference therein and any supplements or amendments thereto and this Agreement and that:

(i) the representations and warranties of the Company in this Agreement are true and correct on and as of such date with the same effect as if made on such date and the Company has complied with all the agreements and satisfied all the conditions on its part to be performed or satisfied at or prior to such date;

(ii) no stop order suspending the effectiveness of the Registration Statement or any notice objecting to its use has been issued and no proceedings for that purpose have been instituted or, to the Company's knowledge, threatened; and

(iii) since the date of the most recent financial statements included in the Disclosure Package, there has been no Material Adverse Effect on the condition (financial or otherwise), earnings, business or properties of the Company and its subsidiaries, taken as a whole, whether or not arising from transactions in the ordinary course of business, except as set forth in or contemplated in the Registration Statement and the Prospectus.

(d) Delivery of Accountants' "Comfort" Letter. The Company shall have requested and caused the Accountants to have furnished to the Manager, to the extent requested by the Manager and upon reasonable advance notice in connection with any offering of the Shares, letters (which may refer to letters previously delivered to the Manager), dated as of such date, in form and substance satisfactory to the Manager, confirming that they are independent accountants within the meaning of the Act and the Exchange Act and the respective applicable rules and regulations adopted by the Commission thereunder and that they have performed a review of any unaudited interim financial information of the Company and included or incorporated by reference in the Registration Statement and the Prospectus and provide customary "comfort" as to such review in form and substance satisfactory to the Manager.

(e) No Material Adverse Event. Since the respective dates as of which information is disclosed in the Disclosure Package, except as otherwise stated therein, there shall not have been (i) any change or decrease in previously reported results specified in the letter or letters referred to in paragraph (d) of this Section 7 or (ii) any change, or any development involving a prospective change, in or affecting the condition (financial or otherwise), earnings, business or properties of the Company and its subsidiaries taken as a whole, whether or not

arising from transactions in the ordinary course of business, except as set forth in or contemplated in the Disclosure Package (exclusive of any amendment or supplement thereto) the effect of which, in any case referred to in clause (i) or (ii) above, is, in the sole judgment of the Manager, so material and adverse as to make it impractical or inadvisable to proceed with the offering or delivery of the Shares as contemplated by the Disclosure Package (exclusive of any amendment or supplement thereto).

(f) Payment of All Fees. The Company shall have paid the required Commission filing fees relating to the Shares within the time period required by Rule 456(b)(1)(i) of the Act without regard to the proviso therein and otherwise in accordance with Rules 456(b) and 457(r) of the Act and, if applicable, shall have updated the "Calculation of Registration Fee" table in accordance with Rule 456(b)(1)(ii) either in a post-effective amendment to the Registration Statement or on the cover page of a prospectus filed pursuant to Rule 424(b).

(g) No FINRA Objections. FINRA shall not have raised any objection with respect to the fairness and reasonableness of the terms and arrangements under this Agreement.

(h) Shares Listed on Trading Market. The Shares shall have been listed and admitted and authorized for trading on the Trading Market, and satisfactory evidence of such actions shall have been provided to the Manager.

(i) Other Assurances. Prior to each Settlement Date and Time of Delivery, as applicable, the Company shall have furnished to the Manager such further information, certificates and documents as the Manager may reasonably request.

If any of the conditions specified in this Section 7 shall not have been fulfilled when and as provided in this Agreement, or if any of the opinions and certificates mentioned above or elsewhere in this Agreement shall not be reasonably satisfactory in form and substance to the Manager and counsel for the Manager, this Agreement and all obligations of the Manager hereunder may be canceled at, or at any time prior to, any Settlement Date or Time of Delivery, as applicable, by the Manager. Notice of such cancellation shall be given to the Company in writing or by telephone or facsimile confirmed in writing.

The documents required to be delivered by this Section 7 shall be delivered at the office of Ellenoff Grossman & Schole LLP, counsel for the Manager, at 1345 Avenue of the Americas, New York, New York 10105, on each such date as provided in this Agreement.

8. Indemnification and Contribution.

(a) Indemnification by Company. The Company agrees to indemnify and hold harmless the Manager, the directors, officers, employees and agents of the Manager and each person, if any, who controls the Manager within the meaning of either Section 15 of the Act or Section 20 of the Exchange Act against any and all losses, claims, damages or liabilities, joint or several, to which they or any of them may become subject under the Act, the Exchange Act or other Federal or state statutory law or regulation, at common law or otherwise, insofar as such losses, claims, damages or liabilities (or actions in respect thereof) arise out of or are based upon any untrue statement or alleged untrue statement of a material fact contained in the Registration Statement for the registration of the Shares as originally filed or in any amendment thereof, or in the Base Prospectus, any Prospectus Supplement relating to the Shares, the Prospectus, any Issuer Free Writing Prospectus relating to the Shares, or in any amendment thereof or supplement thereto, or arise out of or are based upon the omission or alleged omission to state therein a material fact required to be stated therein or necessary to make the statements therein not misleading, and agrees to reimburse each such indemnified party for any legal or other expenses reasonably incurred by them in connection with investigating or defending any such loss, claim, damage, liability or action; provided, however, that the Company will not be liable in any such case to the extent that any such loss, claim, damage or liability arises out of or is based upon any such untrue statement or alleged untrue statement or omission or alleged omission made therein in reliance upon and in conformity with written information furnished to the Company by the Manager specifically for inclusion therein. This indemnity agreement will be in addition to any liability that the Company may otherwise have.

(b) Indemnification by Manager. The Manager agrees to indemnify and hold harmless the Company, each of its directors, each of its officers who signs the Registration Statement, and each person who controls the Company within the meaning of either the Section 15 of the Act or Section 20 of the Exchange Act, together with each such person's respective officers, directors, employees and agents, to the same extent as the foregoing indemnity from the Company to the Manager, but only with reference to written information relating to the Manager furnished to the Company by the Manager specifically for inclusion in the documents referred to in the foregoing indemnity, provided, however, that in no case shall the Manager be responsible for any amount in excess of the Broker Fee applicable to the Shares and paid hereunder. This indemnity agreement will be in addition to any liability which the Manager may otherwise have.

(c) Indemnification Procedures. Promptly after receipt by an indemnified party under this Section 8 of notice of the commencement of any action, such indemnified party will, if a claim in respect thereof is to be made against the indemnifying party under this Section 8, notify the indemnifying party in writing of the commencement thereof; but the failure so to notify the indemnifying party (i) will not relieve it from liability under paragraph (a) or (b)

above unless and to the extent it did not otherwise learn of such action and such failure results in the forfeiture by the indemnifying party of substantial rights and defenses and (ii) will not, in any event, relieve the indemnifying party from any obligations to any indemnified party other than the indemnification obligation provided in paragraph (a) or (b) above. The indemnifying party shall be entitled to appoint counsel of the indemnifying party's choice at the indemnifying party's expense to represent the indemnified party in any action for which indemnification is sought (in which case the indemnifying party shall not thereafter be responsible for the fees and expenses of any separate counsel retained by the indemnified party or parties except as set forth below); provided, however, that such counsel shall be reasonably satisfactory to the indemnified party. Notwithstanding the indemnifying party's election to appoint counsel to represent the indemnified party in an action, the indemnified party shall have the right to employ separate counsel (including local counsel), and the indemnifying party shall bear the reasonable fees, costs and expenses of such separate counsel if (i) the use of counsel chosen by the indemnifying party to represent the indemnified party would present such counsel with a conflict of interest, (ii) the actual or potential defendants in, or targets of, any such action include both the indemnified party and the indemnifying party and the indemnified party shall have reasonably concluded that there may be legal defenses available to it and/or other indemnified parties which are different from or additional to those available to the indemnifying party, (iii) the indemnifying party shall not have employed counsel reasonably satisfactory to the indemnified party to represent the indemnified party within a reasonable time after notice of the institution of such action or (iv) the indemnifying party shall authorize the indemnified party to employ separate counsel at the expense of the indemnifying party. It is understood that the indemnifying party or parties shall not, in connection with any proceeding or related proceedings in the same jurisdiction, be liable for the reasonable fees, disbursements and other charges of more than one separate firm admitted to practice in such jurisdiction at any one time for all such indemnified party or parties. All such fees, disbursements and other charges will be reimbursed by the indemnifying party promptly after the indemnifying party receives a written invoice relating to fees, disbursements and other charges in reasonable detail. An indemnifying party will not, without the prior written consent of the indemnified parties, settle or compromise or consent to the entry of any judgment with respect to any pending or threatened claim, action, suit or proceeding in respect of which indemnification or contribution may be sought hereunder (whether or not the indemnified parties are actual or potential parties to such claim or action) unless such settlement, compromise or consent includes an unconditional release of each indemnified party from all losses, claims, damages or liabilities arising out of such claim, action, suit or proceeding and such settlement does not admit or constitute an admission of fault, guilt, failure to act or culpability on the part of any such indemnified party.

(d) Contribution. In the event that the indemnity provided in paragraph (a), (b) or (c) of this Section 8 is unavailable to or insufficient to hold

harmless an indemnified party for any reason, the Company and the Manager agree to contribute to the aggregate losses, claims, damages and liabilities (including legal or other expenses reasonably incurred in connection with investigating or defending the same) (collectively “ Losses ”) to which the Company and the Manager may be subject in such proportion as is appropriate to reflect the relative benefits received by the Company on the one hand and by the Manager on the other from the offering of the Shares; provided, however, that in no case shall the Manager be responsible for any amount in excess of the Broker Fee applicable to the Shares and paid hereunder. If the allocation provided by the immediately preceding sentence is unavailable for any reason, the Company and the Manager severally shall contribute in such proportion as is appropriate to reflect not only such relative benefits but also the relative fault of the Company on the one hand and of the Manager on the other in connection with the statements or omissions which resulted in such Losses as well as any other relevant equitable considerations. Benefits received by the Company shall be deemed to be equal to the total net proceeds from the offering (before deducting expenses) received by it, and benefits received by the Manager shall be deemed to be equal to the Broker Fee applicable to the Shares and paid hereunder as determined by this Agreement. Relative fault shall be determined by reference to, among other things, whether any untrue or any alleged untrue statement of a material fact or the omission or alleged omission to state a material fact relates to information provided by the Company on the one hand or the Manager on the other, the intent of the parties and their relative knowledge, access to information and opportunity to correct or prevent such untrue statement or omission. The Company and the Manager agree that it would not be just and equitable if contribution were determined by pro rata allocation or any other method of allocation which does not take account of the equitable considerations referred to above. Notwithstanding the provisions of this paragraph (d), no person guilty of fraudulent misrepresentation (within the meaning of Section 11(f) of the Act) shall be entitled to contribution from any person who was not guilty of such fraudulent misrepresentation. For purposes of this Section 8, each person who controls the Manager within the meaning of either the Act or the Exchange Act and each director, officer, employee and agent of the Manager shall have the same rights to contribution as the Manager, and each person who controls the Company within the meaning of either the Act or the Exchange Act, each officer of the Company who shall have signed the Registration Statement and each director of the Company shall have the same rights to contribution as the Company, subject in each case to the applicable terms and conditions of this paragraph (d).

9. Termination .

(a) The Company shall have the right, by giving written notice as hereinafter specified in Section 11, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time upon five (5) Business Days’ prior written notice. Any such termination shall be without liability of any party to any other party except that (i) with

respect to any pending sale, through the Manager for the Company, the obligations of the Company, including in respect of compensation of the Manager, shall remain in full force and effect notwithstanding the termination and (ii) the provisions of Sections 5, 7, 8, 9, 10, 11, 13 and 15 of this Agreement shall remain in full force and effect notwithstanding such termination.

(b) The Manager shall have the right, by giving written notice as hereinafter specified in Section 11, to terminate the provisions of this Agreement relating to the solicitation of offers to purchase the Shares in its sole discretion at any time. Any such termination shall be without liability of any party to any other party except that the provisions of Sections 5, 7, 8, 9, 10, 11, 13 and 15 of this Agreement shall remain in full force and effect notwithstanding such termination.

(c) This Agreement shall remain in full force and effect until the earlier of the three year anniversary of the date hereof and such date that this Agreement is terminated pursuant to Sections 9(a) or (b) above or otherwise by mutual agreement of the parties; provided that any such termination by mutual agreement shall in all cases be deemed to provide that Sections 5, 7, 8, 9, 10, 11, 13 and 15 shall remain in full force and effect.

(d) Any termination of this Agreement shall be effective on the date specified in such notice of termination; provided that such termination shall not be effective until the close of business on the date of receipt of such notice by the Manager or the Company, as the case may be. If such termination shall occur prior to the Settlement Date or Time of Delivery for any sale of the Shares, such sale shall settle in accordance with the provisions of Section 2(b) of this Agreement.

(e) In the case of any purchase of Shares by the Manager pursuant to a Terms Agreement, the obligations of the Manager pursuant to such Terms Agreement shall be subject to termination, in the absolute discretion of the Manager, by prompt oral notice given to the Company prior to the Time of Delivery relating to such Shares, if any, and confirmed promptly by facsimile or electronic mail, if since the time of execution of the Terms Agreement and prior to such delivery and payment, (i) trading in the Company's Common Stock shall have been suspended by the Commission or the Trading Market or trading in securities generally on the Trading Market shall have been suspended or limited or minimum prices shall have been established on such exchange, (ii) a banking moratorium shall have been declared either by Federal or New York State authorities or (iii) there shall have occurred any outbreak or escalation of hostilities, declaration by the United States of a national emergency or war, or other calamity or crisis the effect of which on financial markets is such as to make it, in the sole judgment of the Manager, impractical or inadvisable to proceed with the offering or delivery of the Shares as contemplated by the Prospectus (exclusive of any amendment or supplement thereto).

10. Representations and Indemnities to Survive. The respective agreements, representations, warranties, indemnities and other statements of the Company or its officers and of the Manager set forth in or made pursuant to this Agreement will remain in full force and effect, regardless of any investigation made by the Manager or the Company or any of the officers, directors, employees, agents or controlling persons referred to in Section 8, and will survive delivery of and payment for the Shares.

11. Notices. All communications hereunder will be in writing and effective only on receipt, and, if sent to the Manager, will be mailed, delivered or facsimiled to the address set forth on the signature page hereto.

12. Successors. This Agreement will inure to the benefit of and be binding upon the parties hereto and their respective successors and the officers, directors, employees, agents and controlling persons referred to in Section 8, and no other person will have any right or obligation hereunder.

13. No Fiduciary Duty. The Company hereby acknowledges that (a) the purchase and sale of the Shares pursuant to this Agreement is an arm's-length commercial transaction between the Company, on the one hand, and the Manager and any affiliate through which it may be acting, on the other, (b) the Manager is acting solely as sales agent and/or principal in connection with the purchase and sale of the Company's securities and not as a fiduciary of the Company and (c) the Company's engagement of the Manager in connection with the offering and the process leading up to the offering is as independent contractors and not in any other capacity. Furthermore, the Company agrees that it is solely responsible for making its own judgments in connection with the offering (irrespective of whether the Manager has advised or is currently advising the Company on related or other matters). The Company agrees that it will not claim that the Manager has rendered advisory services of any nature or respect, or owe an agency, fiduciary or similar duty to the Company, in connection with such transaction or the process leading thereto.

14. Integration. This Agreement and any Terms Agreement supersede all prior agreements and understandings (whether written or oral) between the Company and the Manager with respect to the subject matter hereof.

15. Applicable Law. This Agreement and any Terms Agreement will be governed by and construed in accordance with the laws of the State of New York applicable to contracts made and to be performed within the State of New York.

16. WAIVER OF JURY TRIAL. THE COMPANY HEREBY IRREVOCABLY WAIVES, TO THE FULLEST EXTENT PERMITTED BY APPLICABLE LAW, ANY AND ALL RIGHT TO TRIAL BY JURY IN ANY LEGAL PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT, ANY TERMS AGREEMENT OR THE TRANSACTIONS CONTEMPLATED HEREBY OR THEREBY.

17. Counterparts. This Agreement and any Terms Agreement may be signed in one or more counterparts, each of which shall constitute an original and all of which together shall constitute one and the same agreement, which may be delivered by facsimile or in .pdf file via e-mail.

18. Headings. The section headings used in this Agreement and any Terms Agreement are for convenience only and shall not affect the construction hereof.

If the foregoing is in accordance with your understanding of our agreement, please sign and return to us the enclosed duplicate hereof, whereupon this letter and your acceptance shall represent a binding agreement among the Company and the Manager.

Very truly yours,

MARRONE BIO INNOVATIONS, INC.

By: /s/ Pamela G. Marrone
Name: Pamela G. Marrone
Title: President and Chief Executive Officer

The foregoing Agreement is hereby confirmed and accepted as of the date first written above.

H.C. WAINWRIGHT & CO., LLC

By: /s/ Mark W. Viklund
Name: Mark W. Viklund
Title: CEO

Address for Notice:

430 Park Avenue
New York, New York 10022
notices@hewco.com

Form of Terms Agreement
ANNEX I
MARRONE BIO INNOVATIONS, INC. TERMS AGREEMENT

Dear Sirs:

Marrone Bio Innovations, Inc. (the “Company”) proposes, subject to the terms and conditions stated herein and in the At The Market Offering Agreement, dated _____ (the “At The Market Offering Agreement”), between the Company and H.C. Wainwright & Co., LLC (“Agent”), to issue and sell to Agent the securities specified in the Schedule I hereto (the “Purchased Shares”).

Each of the provisions of the At The Market Offering Agreement not specifically related to the solicitation by H.C. Wainwright & Co., LLC, as agent of the Company, of offers to purchase securities is incorporated herein by reference in its entirety, and shall be deemed to be part of this Terms Agreement to the same extent as if such provisions had been set forth in full herein. Each of the representations and warranties set forth therein shall be deemed to have been made at and as of the date of this Terms Agreement and the Time of Delivery, except that each representation and warranty in Section 3 of the At The Market Offering Agreement which makes reference to the Prospectus (as therein defined) shall be deemed to be a representation and warranty as of the date of the At The Market Offering Agreement in relation to the Prospectus, and also a representation and warranty as of the date of this Terms Agreement and the Time of Delivery in relation to the Prospectus as amended and supplemented to relate to the Purchased Shares.

An amendment to the Registration Statement (as defined in the At The Market Offering Agreement), or a supplement to the Prospectus, as the case may be, relating to the Purchased Shares, in the form heretofore delivered to the Manager is now proposed to be filed with the Securities and Exchange Commission.

Subject to the terms and conditions set forth herein and in the At The Market Offering Agreement which are incorporated herein by reference, the Company agrees to issue and sell to Agent and the latter agrees to purchase from the Company the number of shares of the Purchased Shares at the time and place and at the purchase price set forth in the Schedule I hereto.

If the foregoing is in accordance with your understanding, please sign and return to us a counterpart hereof, whereupon this Terms Agreement, including those provisions of the At The Market Offering Agreement incorporated herein by reference, shall constitute a binding agreement between the Manager and the Company.

MARRONE BIO INNOVATIONS, INC.

By: _____
Name:
Title:

ACCEPTED as of the date first written above.

H.C. WAINWRIGHT & CO., LLC

By: _____
Name:
Title:

MARRONE BIO INNOVATIONS, INC.

AND

Trustee

INDENTURE

Dated as of

Debt Securities

Reconciliation and tie between
Trust Indenture Act of 1939, as amended,
and the Indenture

<u>Trust Indenture Act Section</u>	<u>Indenture Section</u>
(S)310(a)(1)	6.8
(a)(2)	6.8
(b)	6.9
(S)312(a)	7.1
(b)	7.2
(c)	7.2
(S)313(a)	7.3
(b)(2)	7.3
(c)	7.3
(d)	7.3
(S)314(a)	7.4
(c)(1)	1.2
(c)(2)	1.2
(e)	1.2
(f)	1.2
(S)316(a) (last sentence)	1.1
(a)(1)(A)	5.2, 5.12
(a)(1)(B)	5.13
(b)	5.8
(S)317(a)(1)	5.3
(a)(2)	5.4
(b)	10.3
(S)318(a)	1.8

Note: This reconciliation and tie shall not, for any purpose, be deemed to be part of the Indenture.

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INDENTURE (the “Indenture”), dated as of _____, between Marrone Bio Innovations, Inc., a corporation existing under the laws of the State of Delaware (the “Company”), and _____, as trustee (the “Trustee”).

RECITALS

The Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its debentures, notes or other evidences of indebtedness (hereinafter called the “Securities”), unlimited as to principal amount, to bear such rates of interest, to mature at such time or times, to be issued in one or more series and to have such other provisions as shall be fixed as hereinafter provided.

All things necessary to make this Indenture a valid and legally binding agreement of the Company, in accordance with its terms, have been done.

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

For and in consideration of the premises and the purchase of the Securities by the Holders (as herein defined) thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of any series thereof as follows:

ARTICLE 1

DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

Section 1.1 Definitions: Rules of Construction

Except as otherwise expressly provided in or pursuant to this Indenture or unless the context otherwise requires, for all purposes of this Indenture:

- (1) the terms defined in this Article 1 have the meanings assigned to them in this Article 1, and include the plural as well as the singular;
- (2) all other terms used herein that are defined in the Trust Indenture Act, either directly or by reference therein, have the meanings assigned to them therein;
- (3) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with generally accepted accounting principles and, except as otherwise herein expressly provided, the terms “generally accepted accounting principles” or “GAAP” with respect to any computation required or permitted hereunder shall mean such accounting principles as are generally accepted as of the date hereof;
- (4) the words “herein,” “hereof,” “hereto” and “hereunder” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision;
- (5) the word “or” is always used inclusively (for example, the phrase “A or B” means “A or B or both,” not “either A or B but not both”);
- (6) provisions apply to successive events and transactions;
- (7) any reference to gender includes the masculine, feminine and the neuter, as the case may be;
- (8) references to agreements and other instruments include subsequent amendments thereto and restatements thereof;
- (9) “including” means “including without limitation”;
- (10) all exhibits are incorporated by reference herein and expressly made a part of this Indenture;
- (11) all references to articles, sections and exhibits (and subparts thereof) are to this Indenture; and

(12) any transaction or event shall be considered “permitted by” or made “in accordance with” or “in compliance with” this Indenture or any particular provision thereof if such transaction or event is not expressly prohibited by this Indenture or such provision, as the case may be.

Certain terms used principally in certain Articles hereof are defined in those Articles.

“Act,” when used with respect to any Holders, has the meaning specified in Section 1.4.

“Additional Amounts” means any additional amounts which are required by this Indenture or by any Security, under circumstances specified herein or therein, to be paid by the Company in respect of certain taxes, assessments or other governmental charges imposed on Holders specified therein and which are owing to such Holders.

“Additional Interest” means any additional interest which is required by any Security to be paid as a result of a failure on the part of the Company duly to observe or perform the covenants and agreements set forth in Section 7.4.

“Affiliate” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For the purposes of this definition, “control,” when used with respect to any specified Person, means the power to direct the management and policies of such Person, directly or indirectly, whether through the ownership of voting securities, by contract or otherwise; and the terms “controlling” and “controlled” have the meanings correlative to the foregoing.

“Applicable Procedures” means, with respect to any transfer or exchange of or for beneficial interests in any Global Security, the rules and procedures of the Depository that apply to such transfer or exchange at the relevant time.

“Authenticating Agent” means any Person authorized by the Trustee pursuant to Section 6.12 to act on behalf of the Trustee to authenticate Securities of one or more series.

“Authorized Newspaper” means a newspaper, in an official language of the place of publication or in the English language, customarily published on each day that is a Business Day in the place of publication, whether or not published on days that are Legal Holidays in the place of publication, and of general circulation in each place in connection with which the term is used or in the financial community of each such place. Where successive publications are required to be made in Authorized Newspapers, the successive publications may be made in the same or in different newspapers in the same city meeting the foregoing requirements and in each case on any day that is a Business Day in the place of publication. If it shall be impractical in the opinion of the Trustee to make any publication of any notice required hereby in an Authorized Newspaper, any publication or other notice in lieu thereof which is made or given with the approval of the Trustee shall constitute a sufficient publication of such notice.

“Board of Directors” means:

- (1) with respect to the Company, the board of directors of the Company or any committee of the board of directors of the Company duly authorized to act generally or in any particular respect for the Company under this Indenture;
- (2) with respect to any other corporation, the board of directors of the corporation or any authorized committee thereof;
- (3) with respect to a limited liability company, the managing member or managing members of such limited liability company or any authorized committee thereof;
- (4) with respect to a partnership, the board of directors of the general partner of the partnership or any authorized committee thereof; and
- (5) with respect to any other Person, the board or committee of such Person serving a similar function.

“Board Resolution” means a copy of one or more resolutions (which may be standing resolutions), certified by the Secretary or an Assistant Secretary of the Company to have been duly adopted by the Board of Directors of the Company and to be in full force and effect on the date of such certification, and delivered to the Trustee.

“Business Day” means, unless otherwise specified with respect to any Securities pursuant to Section 3.1, each day that is not a Saturday, Sunday or other day on which banking institutions in New York, New York or another Place of Payment are authorized or required by law, regulation or executive order to close.

“Commission” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act or any successor agency.

“Common Stock” includes any stock of any class of the Company which has no preference in respect of dividends or of amounts payable in the event of any voluntary or involuntary liquidation, dissolution or winding up of the Company.

“Company” means the Person named as the “Company” in the first paragraph of this Indenture until a successor Person shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor Person.

“Company Request” and “Company Order” mean, respectively, a written request or order, as the case may be, signed in the name of the Company by the Chairman of the Board of Directors of the Company, a Vice Chairman, the President, a Vice President, the Treasurer, the Assistant Treasurer, the Secretary or the Assistant Secretary or other person authorized by resolution of the Board of Directors of the Company, and delivered to the Trustee.

“Corporate Trust Office” means the designated office of the Trustee at which the corporate trust business of the Trustee shall at any particular time be administered, which office at the date of original execution of this Indenture is located at.

“Corporation” includes corporations and limited liability companies and, except for purposes of Article 8, associations, companies (other than limited liability companies) and business trusts.

“Currency” means, with respect to any payment, deposit or other transfer in respect of the principal of or any premium or interest on or any Additional Amounts with respect to any Security, Dollars or Foreign Currency, as the case may be, in which such payment, deposit or other transfer is required to be made by or pursuant to the terms hereof or such Security and, with respect to any other payment, deposit or transfer pursuant to or contemplated by the terms hereof or such Security, means Dollars.

“CUSIP number” means the alphanumeric designation assigned to a Security by Standard & Poor’s Corporation, CUSIP Service Bureau.

“Defaulted Interest” has the meaning specified in Section 3.7.

“Definitive Security” means a certificated Security registered in the name of the Holder thereof (other than a Depository or its nominee) issued under this Indenture pursuant to Section 3.1 and Section 3.5.

“Dollars” or “\$” means a dollar or other equivalent unit of legal tender for payment of public or private debts in the United States of America.

“Event of Default” has the meaning specified in Section 5.1.

“Exchange Act” means the Securities Exchange Act of 1934, as amended, or any successor thereto, in each case as amended from time to time.

“Foreign Currency” means any currency, currency unit or composite currency, including, without limitation, the euro, issued by the government of one or more countries other than the United States of America or by any recognized confederation or association of such governments.

“GAAP” means generally accepted accounting principles in the United States, which are in effect from time to time.

“Global Security” means a Security issued under this Indenture in global form pursuant to Section 3.1, bearing the legend set forth in Section 2.3 and deposited with, or on behalf of, and registered in the name of, the Depository or its nominee.

“Government Obligations” means securities which are (i) direct obligations of the United States of America or the other government or governments in the confederation which issued the Foreign Currency in which the principal of or any premium or interest on any Security or any Additional Amounts in respect thereof shall be payable, in each case where the payment or

payments thereunder are supported by the full faith and credit of the United States or such government or governments or (ii) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States of America or such other government or governments, in each case where the timely payment or payments thereunder are unconditionally guaranteed as a full faith and credit obligation by the United States of America or such other government or governments, and which, in the case of (i) or

(ii), are not callable or redeemable at the option of the issuer or issuers thereof, and shall also include a Depositary receipt issued by a bank or trust company as custodian with respect to any such Government Obligation or a specific payment of interest on or principal of or other amount with respect to any such Government Obligation held by such custodian for the account of the holder of a Depositary receipt, provided that (except as required by law) such custodian is not authorized to make any deduction from the amount payable to the holder of such Depositary receipt from any amount received by the custodian in respect of the Government Obligation or the specific payment of interest on or principal of or other amount with respect to the Government Obligation evidenced by such Depositary receipt.

“Holder” means, in the case of any Registered Security, the Person in whose name such Security is registered in the Security Register.

“Indenture” means this instrument as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and, with respect to any Security of any series, by the terms

and provisions of such Security established pursuant to Section 3.1 (as such terms and provisions may be amended pursuant to the applicable provisions hereof); provided, however, that, if at any time more than one Person is acting as Trustee under this instrument, “Indenture” shall mean, with respect to any one or more series of Securities for which such Person is Trustee, this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof and shall include the terms of those particular series of Securities for which such Person is Trustee established pursuant to Section 3.1, exclusive, however, of any provisions or terms which relate solely to other series of Securities for which such Person is not Trustee, regardless of when such terms or provisions were adopted.

“Independent Registered Public Accounting Firm” means a firm of accountants that, with respect to the Company and any other obligor under the Securities, is an independent registered public accounting firm within the meaning of the Securities Act of 1933, as amended, and the rules and regulations promulgated by the Commission thereunder, who may be the independent registered public accounting firm regularly retained by the Company or who may be another independent registered public accounting firm. Such firm shall be entitled to rely upon any Opinion of Counsel as to the interpretation of any legal matters relating to this Indenture or certificates required to be provided hereunder.

“Indexed Security” means a Security the terms of which provide that the principal amount thereof payable at Stated Maturity may be more or less than the principal face amount thereof at original issuance.

“Indirect Participant” means an entity that, with respect to any Depositary, clears through or maintains a direct or indirect, custodial relationship with a Participant.

“interest” means any interest specified in any Security as being payable with respect to that Security, including any Additional Interest when used with respect to a Security which provides for the payment of Additional Interest, and, with respect to any Original Issue Discount Security, which by its terms bears interest only after Maturity, means interest payable after Maturity and, when used with respect to a Security which provides for the payment of Additional Amounts pursuant to Section 10.4, includes such Additional Amounts.

“Interest Payment Date” means, with respect to any Security, the Stated Maturity of an installment of interest on such Security.

“Judgment Currency” has the meaning specified in Section 1.16.

“Legal Holiday” has the meaning specified in Section 1.14.

“Maturity” means, with respect to any Security, the date on which the principal of such Security or an installment of principal becomes due and payable as provided in or pursuant to this Indenture, whether at the Stated Maturity or by declaration of acceleration, notice of redemption or repurchase, notice of option to elect repayment or otherwise, and includes the Redemption Date.

“New York Banking Day” has the meaning specified in Section 1.16.

“Office” or “Agency,” means, with respect to any Securities, an office or agency of the Company maintained or designated as a Place of Payment for such Securities pursuant to Section 10.2 or any other office or agency of the Company maintained or designated for such Securities pursuant to Section 10.2 or, to the extent designated or required by Section 10.2 in lieu of such office or agency, the Corporate Trust Office of the Trustee.

“Officer” means, with respect to any Person, the Chairman of the Board of Directors, a Vice Chairman, the Chief Executive Officer, the President, any Vice President (without regard to qualifiers such as “Executive” or “Senior”), the Chief Operating Officer, the Chief Financial Officer, the Treasurer, an Assistant Treasurer, the Controller, the Secretary or an Assistant Secretary of such Person or other Person authorized by resolution of the Board of Directors of such Person.

“Officer’s Certificate” means a certificate signed by an Officer, that, if applicable, complies with the requirements of Section 314(e) of the Trust Indenture Act and is delivered to the Trustee.

“Opinion of Counsel” means a written opinion of counsel, who may be an employee of or counsel for the Company or other counsel that, if applicable, complies with the requirements of Section 314(e) of the Trust Indenture Act.

“Original Issue Discount Security” means a Security issued pursuant to this Indenture that provides, at any time prior to the final Stated Maturity of such Security, for declaration of an amount less than the principal amount thereof to be due and payable upon acceleration pursuant to Section 5.2.

“Outstanding” means, when used with respect to any Securities, as of the date of determination, all such Securities theretofore authenticated and delivered under this Indenture, except:

- (1) any such Security theretofore cancelled by the Trustee or delivered to the Trustee for cancellation including Securities tendered and exchanged for other securities of the Company;
- (2) any such Security of any series for which payment at the Maturity thereof money in the necessary amount has been theretofore deposited pursuant hereto (other than pursuant to Section 4.2) with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such series of Securities, provided that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;
- (3) any such Security of any series with respect to which the Company has effected defeasance or covenant defeasance pursuant to the terms hereof, except to the extent provided in Section 4.2;
- (4) any such Security which has been paid pursuant to Section 3.6 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, unless there shall have been presented to the Trustee proof satisfactory to it that such Security is held by a “protected purchaser” (as such term is defined in the New York Uniform Commercial Code) in whose hands such Security is a valid obligation of the Company; and
- (5) any such Security converted or exchanged as contemplated by this Indenture into Common Stock or other securities, cash or other property, if the terms of such Security provide for such conversion or exchange pursuant to Section 3.1;

provided, however, that in determining whether the Holders of the requisite principal amount of Outstanding Securities of any series have given any request, demand, authorization, direction, notice, consent or waiver hereunder or are present at a meeting of Holders of Securities of such series for quorum purposes, (i) the principal amount of an Original Issue Discount Security that may be counted in making such determination and that shall be deemed to be Outstanding for such purposes shall be equal to the amount of the principal thereof that pursuant to the terms of such Original Issue Discount Security would be declared (or shall have been declared to be) due and payable upon a declaration of acceleration thereof pursuant to Section 5.2 at the time of such determination, and (ii) the principal amount of any Indexed Security that may be counted in making such determination and that shall be deemed Outstanding for such purpose shall be equal to the principal face amount of such Indexed Security at original issuance, unless otherwise provided in or pursuant to this Indenture, and (iii) the principal amount of a Security denominated in a Foreign Currency shall be the Dollar equivalent, determined on the date of original issuance of such Security, of the principal amount (or, in the case of an Original Issue Discount Security, the Dollar equivalent on the date of original

issuance of such Security of the amount determined as provided in (i) above) of such Security, and (iv) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or such other obligor, shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in making any such determination or relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities which a Responsible Officer actually knows to be so owned shall be so disregarded. Securities so owned which shall have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of a Responsible Officer (A) the pledgee's right so to act with respect to such Securities and (B) that the pledgee is not the Company or any other obligor upon the Securities or an Affiliate of the Company or such other obligor.

“Participant” means, with respect to the Depository, a Person who has an account with the Depository.

“Paying Agent” means any Person authorized by the Company to pay the principal of, or any premium or interest on, or any Additional Amounts with respect to, any Security on behalf of the Company.

“Person” or “person” means any individual, corporation, partnership, joint venture, joint-stock company, association, trust, unincorporated organization, limited liability company or government or any agency or political subdivision thereof.

“Place of Payment” means, with respect to any Security, the place or places where the principal of, or any premium or interest on, or any Additional Amounts with respect to such Security are payable as provided in or pursuant to this Indenture or such Security.

“Predecessor Security” of any particular Security means every previous Security evidencing all or a portion of the same indebtedness as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 3.6 in exchange for or in lieu of a lost, destroyed, mutilated or stolen Security shall be deemed to evidence the same indebtedness as the lost, destroyed, mutilated or stolen Security.

“Redemption Date” means, with respect to any Security or portion thereof to be redeemed, each date fixed for such redemption by or pursuant to this Indenture or such Security.

“Redemption Price” means, with respect to any Security or portion thereof to be redeemed, the price at which it is to be redeemed including, if applicable, accrued and unpaid interest and Additional Amounts as determined by or pursuant to this Indenture or such Security.

“Registered Security” means any Security established pursuant to Section 2.1 which is registered in the Security Register.

“Regular Record Date” for the interest payable on any Registered Security on any Interest Payment Date therefor means the date, if any, specified in or pursuant to this Indenture or such Security as the “Regular Record Date.”

“Required Currency” has the meaning specified in Section 1.16.

“Responsible Officer” means any officer of the Trustee in its Corporate Trust Office with direct responsibility for the administration of this Indenture, and also, with respect to a particular corporate trust matter, any other officer of the Trustee to whom such matter is referred because of such officer's knowledge of and familiarity with the particular subject.

“Security” or “Securities” means any note or notes, bond or bonds, debenture or debentures, or any other evidences of indebtedness, as the case may be, authenticated and delivered under this Indenture; provided, however, that, if at any time there is more than one Person acting as Trustee under this Indenture, “Securities,” with respect to any such Person, shall mean Securities authenticated and delivered under this Indenture, exclusive, however, of Securities of any series as to which such Person is not Trustee.

“Security Register,” “Security Registrar” and “Registrar” have the respective meanings specified in Section 3.5.

“series” means a series of Securities established under this Indenture.

“Special Record Date” for the payment of any Defaulted Interest on any Registered Security means a date fixed by the Trustee pursuant to Section 3.7.

“Stated Maturity” means, with respect to any Security or any installment of principal thereof or interest thereon or any

Additional Amounts with respect thereto, the date established by or pursuant to this Indenture or such Security as the fixed date on which the principal of such Security or such installment of principal or interest is, or such Additional Amounts are, due and payable.

“Trust Indenture Act” or “TIA” means the Trust Indenture Act of 1939, as amended, and any reference herein to the Trust Indenture Act or a particular provision thereof shall mean such Act or provision, as the case may be, as amended or replaced from time to time or as supplemented from time to time by rules or regulations adopted by the Commission under or in furtherance of the purposes of such Act or provision, as the case may be.

“Trustee” means the Person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have become such with respect to one or more series of Securities pursuant to the applicable provisions of this Indenture, and thereafter

“Trustee” shall mean each Person who is then a Trustee hereunder; provided, however, that if at any time there is more than one such Person, “Trustee” shall mean each such Person and as used with respect to the Securities of any series shall mean only the Trustee with respect to the Securities of such series.

“United States” means, except as otherwise provided in or pursuant to this Indenture or any Security, the United States of America (including the states thereof and the District of Columbia), its territories and possessions and other areas subject to its jurisdiction.

“United States Alien” means, except as otherwise provided in or pursuant to this Indenture or any Security, any Person who, for United States federal income tax purposes, is a foreign corporation, a non-resident alien individual, a non-resident alien fiduciary of a foreign estate or trust, or a foreign partnership one or more of the members of which is, for United States federal income tax purposes, a foreign corporation, a non-resident alien individual or a non-resident alien fiduciary of a foreign estate or trust.

“U.S. Depository” or “Depository” means, with respect to any Security issuable or issued in the form of one or more Global Securities, the Person designated as U.S. Depository or Depository by the Company in or pursuant to this Indenture, which Person

must be, to the extent required by applicable law or regulation, a clearing agency registered under the Exchange Act and, if so provided with respect to any Security, any successor to such Person. If at any time there is more than one such Person, “U.S. Depository” or “Depository” shall mean, with respect to any Securities, the qualifying entity which has been appointed with respect to such Securities.

“Vice President” means, when used with respect to the Company or the Trustee, any vice president, whether or not designated by a number or a word or words added before or after the title “Vice President.”

Section 1.2 Compliance Certificates and Opinions

Except as otherwise expressly provided in or pursuant to this Indenture, upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officer’s Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that, in the opinion of such counsel, all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents or any of them is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished.

Every certificate or opinion with respect to compliance with a condition or covenant or covenant provided for in this Indenture (other than a certificate delivered pursuant to Section 10.6) shall include:

- (1) a statement that each individual signing such certificate or opinion has read such condition or covenant and the definitions herein relating thereto;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(3) a statement that, in the opinion of each such individual, he or she has made such examination or investigation as is necessary to enable him or her to express an informed opinion as to whether or not such condition or covenant has been complied with; and

(4) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

Section 1.3 Form of Documents Delivered to Trustee

In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an Officer of the Company may be based, insofar as it relates to legal matters, upon an Opinion of Counsel, unless such Officer knows that the opinion with respect to the matters upon which his certificate or opinion is based are erroneous. Any such Opinion of Counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an Officer or Officers of the Company stating that the information with respect to such factual matters is in the possession of the Company unless such counsel knows that the certificate or opinion or representations with respect to such matters are erroneous. Any certificate, statement or opinion of an Officer of the Company or any Opinion of Counsel may be based, insofar as it relates to accounting matters, upon a certificate or opinion of or representations by an accountant or firm of accountants in the employ of the Company, unless such Officer or counsel, as the case may be, knows that the certificate or opinion or representations with respect to the accounting matters upon which his certificate, statement or opinion may be based as aforesaid are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture or any Security, they may, but need not, be consolidated and form one instrument.

Section 1.4 Acts of Holders

(1) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by or pursuant to this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments (including instruments in electronic, digital or other machine-readable form) of substantially similar tenor signed by such Holders (whether in person or through signatures in electronic, digital or other machine-readable form) or by an agent duly appointed in writing (including writings in electronic, digital or other machine-readable form) or may be embodied in and evidenced by the record of Holders voting in favor thereof, either in person or by proxies duly appointed in writing, at any meeting of Holders duly called and held in accordance with the provisions of Article 15, or a combination of such instruments or record. Except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments or record or both are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments or record or both (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the “Act” of the Holders signing such instrument or instruments or so voting at any such meeting. Proof of execution of any such instrument or of a writing appointing any such agent, or of the holding by any Person of a Security, shall be sufficient for any purpose of this Indenture and (subject to Section 315 of the Trust Indenture Act) conclusive in favor of the Trustee and the Company and any agent of the Trustee or the Company, if made in the manner provided in this Section 1.4. The record of any meeting of Holders of Securities shall be proved in the manner provided in Section 15.6.

Without limiting the generality of this Section 1.4, unless otherwise provided in or pursuant to this Indenture, a Holder, including a U.S. Depository that is a Holder of a Global Security, may make, give or take, by a proxy or proxies, duly appointed in writing, any request, demand, authorization, direction, notice, consent, waiver or other Act provided in or pursuant to this Indenture or the Securities to be made, given or taken by Holders, and a U.S. Depository that is a Holder of a Global Security may provide its proxy or proxies to the beneficial owners of interests in any such Global Security through such U.S. Depository’s standing instructions and customary practices.

The Trustee may fix a record date for the purpose of determining the Persons who are beneficial owners of interests in any permanent Global Security held by a U.S. Depository entitled under the procedures of such U.S. Depository to make, give or take, by a proxy or proxies duly appointed in writing, any request, demand, authorization, direction, notice, consent, waiver or other Act provided in or pursuant to this Indenture to be made, given or taken by Holders.

(2) The fact and date of the execution by any Person of any such instrument or writing referred to in this Section 1.4 may be proved in any reasonable manner which the Trustee deems sufficient and in accordance with such reasonable rules as the Trustee may determine; and the Trustee may in any instance require further proof with respect to any of the matters referred to in this Section 1.4.

(3) The ownership, principal amount and serial numbers of Registered Securities held by any Person, and the date of the commencement and the date of the termination of holding the same, shall be proved by the Security Register.

(4) If the Company shall solicit from the Holders of any Registered Securities any request, demand, authorization, direction, notice, consent, waiver or other Act, the Company may, at its option (but is not obligated to), by Board Resolution, fix in advance a record date for the determination of Holders of Registered Securities entitled to give such request, demand, authorization, direction, notice, consent, waiver or other Act. If such a record date is fixed, such request, demand, authorization, direction, notice, consent, waiver or other Act may be given before or after such record date, but only the Holders of Registered Securities of record at the close of business on such record date shall be deemed to be Holders for the purpose of determining whether Holders of the requisite proportion of Outstanding Securities have authorized or agreed or consented to such request, demand, authorization, direction, notice, consent, waiver or other Act, and for that purpose the Outstanding Securities shall be computed as of such record date; provided that no such authorization, agreement or consent by the Holders of Registered Securities shall be deemed effective unless it shall become effective pursuant to the provisions of this Indenture not later than six months after the record date.

(5) Any request, demand, authorization, direction, notice, consent, waiver or other Act by the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done or suffered to be done by the Trustee, any Security Registrar, any Paying Agent or the Company in reliance thereon, whether or not notation of such Act is made upon such Security.

Section 1.5 Notices, etc., to Trustee and Company

Any request, demand, authorization, direction, notice, consent, waiver or other Act of Holders or other document provided or permitted by this Indenture to be made upon, given or furnished to, or filed with:

(1) the Trustee by any Holder or the Company shall be sufficient for every purpose hereunder if made, given, furnished or filed in writing (which may be via facsimile) to or with the Trustee at its Corporate Trust Office; or

(2) the Company by the Trustee or any Holder shall be sufficient for every purpose hereunder (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid or airmail postage prepaid if sent from outside the United States, to the Company addressed to the attention of its Treasurer (with a copy to the General Counsel) at the address of its principal office specified in the first paragraph of this instrument or at any other address previously furnished in writing to the Trustee by the Company.

Section 1.6 Notice to Holders of Securities: Waiver

Except as otherwise expressly provided in or pursuant to this Indenture, where this Indenture provides for notice to Holders of Securities of all or any series of any event, such notice shall be sufficiently given to Holders of Registered Securities of such series if in writing and mailed, first-class postage prepaid, to each Holder of a Registered Security affected by such event, at his address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice. In any case where notice to Holders of Registered Securities is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder of a Registered Security shall affect the sufficiency of such notice with respect to other Holders of Registered Securities given as provided herein. Any notice which is mailed in the manner herein provided shall be conclusively presumed to have been duly given or provided. In the case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders of Securities shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

Section 1.7 Language of Notices

Any request, demand, authorization, direction, notice, consent, election or waiver required or permitted under this Indenture shall be in the English language, except that, if the Company so elects, any published notice may be in an official language of the country of publication (with a copy in English to be provided to the Trustee).

Section 1.8 Incorporation by Reference of Trust Indenture Act; Trust Indenture Act Controls

(a) If any provision hereof limits, qualifies or conflicts with the duties that would be imposed by any of Sections 310 to 317 of the Trust Indenture Act through operation of Section 318(c) thereof on any person, such imposed duties shall control. The following Trust Indenture Act terms have the following meanings:

“indenture securities” means the Securities;

“indenture security holder” means a Holder;

“indenture to be qualified” means this Indenture;

“indenture trustee” or “institutional trustee” means the Trustee; and

“obligor” on the indenture securities means the Company and any other obligor on the indenture securities.

All other Trust Indenture Act terms used in this Indenture that are defined by the Trust Indenture Act, defined in the Trust Indenture Act by reference to another statute or defined by SEC Rule have the meanings assigned to them by such definitions.

(b) If any provision of this Indenture limits, qualifies or conflicts with another provision which is required to be included in this Indenture by the Trust Indenture Act, the provision required by the Trust Indenture Act shall control.

Section 1.9 Effect of Headings and Table of Contents

The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

Section 1.10 Successors and Assigns

All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

Section 1.11 Separability Clause

In case any provision in this Indenture or any Security shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

Section 1.12 Benefits of Indenture

Nothing in this Indenture or any Security, express or implied, shall give to any Person, other than the parties hereto, any Security Registrar, any Paying Agent, any Authentication Agent and their successors hereunder and the Holders of Securities, any benefit or any legal or equitable right, remedy or claim under this Indenture.

Section 1.13 Governing Law; Waiver of Trial by Jury

This Indenture and the Securities shall be governed by and construed in accordance with the laws of the State of New York applicable to agreements made or instruments entered into and, in each case, performed in said state. Each of the Company and the Trustee hereby irrevocably waives, to the fullest extent permitted by applicable law, any and all right to trial by jury in any legal proceeding arising out of or relating to this Indenture, the Securities or the transactions contemplated hereby.

Section 1.14 Legal Holidays

Unless otherwise specified in or pursuant to this Indenture or any Securities, in any case where any Interest Payment Date, Stated Maturity or Maturity of any Security, or the last date on which a Holder has the right to convert or exchange Securities of a series that are convertible or exchangeable shall not be a Business Day (a “Legal Holiday”) at any Place of Payment, then (notwithstanding any other provision of this Indenture or any Security other than a provision in any Security that specifically states that such provision shall apply in lieu hereof) payment need not be made at such Place of Payment on such date, and such Securities need not be converted or exchanged on such date but such payment may be made, and such Securities may be converted or exchanged, on the next succeeding day that is a Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or at the Stated Maturity or Maturity or on such last day for conversion or exchange, and no interest shall accrue on the amount payable on such date or at such time for the period from and after such Interest Payment Date, Stated Maturity, Maturity or last day for conversion or exchange, as the case may be, to the next succeeding Business Day. If this Indenture provides for a time period that ends or requires performance of any non-payment obligation by a day that is not a Business Day, then such time period shall instead be deemed to end on, and such obligation shall instead be performed by, the next succeeding Business Day.

Section 1.15 Counterparts

This Indenture may be executed in several counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

Section 1.16 Judgment Currency

The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of, or premium or interest, if any, or

Additional Amounts on the Securities of any series (the “Required Currency”) into a currency in which a judgment will be rendered (the “Judgment Currency”), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the requisite amount of the Required Currency with the Judgment Currency on the New York Banking Day preceding the day on which a final unappealable judgment is given and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, or any recovery pursuant to any judgment (whether or not entered in accordance with clause (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture. For purposes of the foregoing, “New York Banking Day” means any day except a Saturday, Sunday or a Legal Holiday in The City of New York or a day on which banking institutions in The City of New York are authorized or obligated by law, regulation or executive order to be closed.

Section 1.17 Limitation on Individual Liability

No recourse under or upon any obligation, covenant or agreement contained in this Indenture or in any Security, or for any claim based thereon or otherwise in respect thereof, shall be had against any incorporator, stockholder, officer or director, as such, past, present or future, of the Company or of any successor, either directly or through the Company or any successor, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise; it being expressly understood that this Indenture and the obligations issued hereunder are solely corporate obligations, and that no such personal liability whatever shall attach to, or is or shall be incurred by, the incorporators, stockholders, officers or directors, as such, of the Company or any successor, or any of them, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any Security or implied therefrom; and that any and all such personal liability of every name and nature, either at common law or in equity or by constitution or statute, of, and any and all such rights and claims against, every such incorporator, stockholder, officer or director, as such, because of the creation of the indebtedness hereby authorized, or under or by reason of the obligations, covenants or agreements contained in this Indenture or in any Security or implied therefrom, are hereby expressly waived and released as a condition of, and as a consideration for, the execution of this Indenture and the issuance of such Security.

ARTICLE 2

SECURITIES FORMS

Section 2.1 Forms Generally

Each Registered Security and temporary or permanent Global Security or Definitive Security issued pursuant to this Indenture shall be in the form established by or pursuant to a Board Resolution and set forth in an Officer's Certificate, or established in one or more indentures supplemental hereto, shall have such appropriate insertions, omissions, substitutions and other variations as are required or permitted by or pursuant to this Indenture or any indenture supplemental hereto and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may, consistently herewith, be determined by the Officers executing such Security as evidenced by their execution of such Security.

Unless otherwise provided in or pursuant to this Indenture or any Securities, the Securities shall be issuable in registered form without coupons and shall not be issuable upon the exercise of warrants.

Definitive Securities shall be printed, lithographed or engraved or produced by any combination of these methods on a steel engraved border or steel engraved borders or may be produced in any other manner, all as determined by the Officers of the Company executing such Securities, as evidenced by their execution of such Securities.

Section 2.2 Form of Trustee's Certificate of Authentication

Subject to Section 6.12, the Trustee's certificate of authentication shall be in substantially the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

_____, as Trustee

By _____
Authorized Signatory

Dated:

Section 2.3 Securities in Global Form

Unless otherwise provided in or pursuant to this Indenture or any Securities, the Securities shall be issuable in permanent global form. If Securities of a series shall be issuable in global form, any such Security may provide that it or any number of such Securities shall represent the aggregate amount of all Outstanding Securities of such

series (or such lesser amount as is permitted by the terms thereof) from time to time endorsed thereon and may also provide that the aggregate amount of Outstanding Securities represented thereby may from time to time be increased or reduced to reflect exchanges, redemptions or transfer of beneficial interests from one Global Security to another Global Security. Any endorsement of any Global Security to reflect the amount, or any increase or decrease in the amount, or changes in the rights of Holders, of Outstanding Securities represented thereby shall be made in such manner and by such Person or Persons as shall be specified therein or in the Company Order to be delivered pursuant to Section 3.3 or Section 3.4 with respect thereto. Subject to the provisions of Section 3.3 and, if applicable, Section 3.4, the Trustee shall deliver and redeliver any Security in permanent global form in the manner and upon instructions given by the Person or Persons specified therein or in the applicable Company Order. If a Company Order pursuant to Section 3.3 or Section 3.4 has been, or simultaneously is, delivered, any instructions by the Company with respect to a Global Security shall be in writing but need not be accompanied by or contained in an Officer's Certificate and need not be accompanied by an Opinion of Counsel.

Notwithstanding the provisions of Section 3.7, unless otherwise specified in or pursuant to this Indenture or any Securities, payment of principal of, any premium and interest on, and any Additional Amounts in respect of, any Security in temporary or permanent global form shall be made to the Person or Persons specified therein.

Notwithstanding the provisions of Section 3.8 and except as provided in the preceding paragraph, the Company, the Trustee

and any agent of the Company or the Trustee shall treat as the Holder of such principal amount of Outstanding Securities as is represented by a Global Security in the case of a Global Security in registered form, the Holder of such Global Security in registered form.

Each Global Security shall bear a legend in substantially the following form (unless otherwise specified by the Depositary):

“THIS DEBT SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS DEBT SECURITY MAY NOT BE TRANSFERRED TO, OR REGISTERED OR EXCHANGED FOR SECURITIES REGISTERED IN THE NAME OF, ANY PERSON OTHER THAN THE DEPOSITARY OR A NOMINEE THEREOF AND NO SUCH TRANSFER MAY BE REGISTERED, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE. EVERY DEBT SECURITY AUTHENTICATED AND DELIVERED UPON REGISTRATION OF TRANSFER OF, OR IN EXCHANGE FOR OR IN LIEU OF, THIS DEBT SECURITY SHALL BE A GLOBAL SECURITY SUBJECT TO THE FOREGOING, EXCEPT IN SUCH LIMITED CIRCUMSTANCES.”

ARTICLE 3

THE SECURITIES

Section 3.1 Amount Unlimited; Issuable in Series

The aggregate principal amount of Securities that may be authenticated and delivered under this Indenture is unlimited. The Securities may be issued in one or more series. With respect to any Securities to be authenticated and delivered hereunder, there shall be established in or pursuant to a Board Resolution and set forth in an Officer’s Certificate, or established in one or more indentures supplemental hereto,

- (1) the title of such Securities and the series, including CUSIP numbers in which such Securities shall be included;
- (2) any limit upon the aggregate principal amount of the Securities of such series that may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of such series pursuant to Section 3.4, Section 3.5, Section 3.6, Section 9.6 or Section 11.7, upon repayment in part of any Registered Security of such series pursuant to Article 13 or upon surrender in part of any Registered Security for conversion or exchange into Common Stock or other securities, cash or other property pursuant to its terms, or pursuant to the terms of such Securities and except for any Securities, which, pursuant to Section 3.3, are deemed never to have been authenticated and delivered hereunder);
- (3) if any of such Securities are to be issuable in global form, when any of such Securities are to be issuable in global form and (i) whether such Securities are to be issued in temporary or permanent global form or both, (ii) whether beneficial owners of interests in any such Global Security may exchange such interests for Securities of the same series and of like tenor and of any authorized form and denomination, and the circumstances under which any such exchanges may occur, if other than in the manner specified in Section 3.5, and (iii) the name of the Depositary or the U.S. Depositary, as the case may be, with respect to any Global Security;
- (4) the date as of which any Global Security shall be dated (if other than the date of original issuance of the first of such Securities to be issued);
- (5) the date or dates, or the method or methods, if any, by which such date or dates shall be determined, on which the principal and premium, if any, of such Securities is payable;
- (6) the rate or rates at which such Securities shall bear interest, if any, or the method or methods, if any, by which such rate or rates are to be determined, the date or dates, if any, from which such interest shall accrue or the method or methods, if any, by which such date or dates are to be determined, the Interest Payment Dates, if any, on which such interest shall be payable and the Regular Record Date, if any, for the interest payable on Registered Securities on any Interest Payment Date, whether and under what circumstances Additional Interest on such Securities or any of them shall be payable, whether and under what circumstances Additional Amounts on such Securities or any of them shall be payable, the notice, if any, to Holders regarding the determination of interest on a floating rate Security and the manner of giving such notice, and the basis upon which interest shall be calculated if other than that of a 360-day year of twelve 30-day months;

- (7) if in addition to or other than the Borough of Manhattan, The City of New York, the place or places where the principal of, any premium and interest on or any Additional Amounts with respect to such Securities shall be payable, any of such Securities that are Registered Securities may be surrendered for registration of transfer or exchange, any of such Securities may be surrendered for conversion or exchange and notices or demands to or upon the Company in respect of such Securities and this Indenture may be served, the extent to which, or the manner in which, any interest payment or Additional Amounts on a Global Security on an Interest Payment Date, will be paid and the manner in which any principal of or premium, if any, on any Global Security will be paid;
- (8) whether any of such Securities are to be redeemable at the option of the Company and, if so, the date or dates on which, the period or periods within which, the price or prices at which and the other terms and conditions upon which such Securities may be redeemed, in whole or in part, at the option of the Company;
- (9) whether the Company is obligated to redeem or purchase any of such Securities pursuant to any sinking fund or analogous provision or at the option of any Holder thereof and, if so, the date or dates on which, the period or periods within which, the price or prices at which and the other terms and conditions upon which such Securities shall be redeemed or purchased, in whole or in part, pursuant to such obligation, and any provisions for the remarketing of such Securities so redeemed or purchased;
- (10) the denominations in which any of such Securities that are Registered Securities shall be issuable if other than denominations of \$1,000 and any multiple of \$1,000 in excess thereof;
- (11) whether the Securities of the series will be convertible into shares of Common Stock and/or exchangeable for other securities, cash or other property of the Company or of any other Person, and if so, the terms and conditions upon which such Securities will be so convertible or exchangeable, and any deletions from or modifications or additions to this Indenture to permit or to facilitate the issuance of such convertible or exchangeable Securities or the administration thereof;
- (12) if other than the principal amount thereof, the portion of the principal amount of any of such Securities that shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.2 or the method by which such portion is to be determined;
- (13) if other than Dollars, the Foreign Currency in which payment of the principal of, any premium or interest on or any Additional Amounts with respect to any of such Securities shall be payable;
- (14) if the principal of, any premium or interest on or any Additional Amounts with respect to any of such Securities are to be payable, at the election of the Company or a Holder thereof or otherwise, in Currency other than that in which such Securities are stated to be payable, the date or dates on which, the period or periods within which, and the other terms and conditions upon which, such election may be made, and the time and manner of determining the exchange rate between the Currency in which such Securities are stated to be payable and the Currency in which such Securities or any of them are to be paid pursuant to such election, and any deletions from or modifications of or additions to the terms of this Indenture to provide for or to facilitate the issuance of Securities denominated or payable, at the election of the Company or a Holder thereof or otherwise, in a Foreign Currency;
- (15) whether the amount of payments of principal of, any premium or interest on or any Additional Amounts with respect to such Securities may be determined with reference to an index, formula, financial or economic measure or other method or methods (which index, formula, measure or method or methods may be based, without limitation, on one or more Currencies, commodities, equity indices or other indices), and, if so, the terms and conditions upon which and the manner in which such amounts shall be determined and paid or be payable;
- (16) any deletions from, modifications of or additions to the Events of Default or covenants of the Company with respect to any of such Securities, whether or not such Events of Default or covenants are consistent with the Events of Default or covenants set forth herein;
- (17) whether either or both of Section 4.2(2) relating to defeasance or Section 4.2(3) relating to covenant defeasance shall not be applicable to the Securities of such series, and any covenants relating to the Securities of such series which shall be subject to covenant defeasance, and, if the Securities of such series are subject to repurchase or repayment at the option of the Holders thereof, whether the Company's obligation to repurchase or repay such Securities will be subject to defeasance or covenant defeasance, and any deletions from, or modifications or additions to, the provisions of Article 4 in respect of the Securities of such series;

(18) whether any of such Securities are to be issuable upon the exercise of warrants, and the time, manner and place for such Securities to be authenticated and delivered;

(19) if there is more than one Trustee or a Trustee other than , the identity of the Trustee and, if not the Trustee, the identity of each Security Registrar, Paying Agent or Authenticating Agent with respect to such Securities;

(20) whether the Securities are senior or subordinated debt securities, and if subordinated debt securities, the terms of such subordination;

(21) whether the Securities of the series will be guaranteed by any Persons and, if so, the identity of such Persons, the terms and conditions upon which such Securities shall be guaranteed and, if applicable, the terms and conditions upon which such guarantees may be subordinated to other indebtedness of the respective guarantors and may be released;

(22) whether the Securities of the series will be secured by any collateral and, if so, the terms and conditions upon which such Securities shall be secured and, if applicable, upon which such liens may be subordinated to other liens securing other indebtedness of the Company or any guarantor and may be released; and

(23) any other terms of such Securities and any deletions from or modifications or additions to this Indenture in respect of such Securities.

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided by the Company in or pursuant to the Board Resolution and set forth in the Officer's Certificate or in any indenture or indentures supplemental hereto pertaining to such series of Securities. The terms of the Securities of any series may provide, without limitation, that the Securities of such series shall be authenticated and delivered by the Trustee on original issue from time to time in accordance with such procedures as are acceptable to the Trustee (including authentication and delivery by the Trustee on original issue from time to time upon telephonic or written order of persons designated in the Officer's Certificate or supplemental indenture (telephonic instructions to be promptly confirmed in writing by such person) and that such persons are authorized to determine, consistent with such Officer's Certificate or any applicable supplemental indenture, such terms and conditions of the Securities of such series as are specified in such Officer's Certificate or supplemental indenture). All Securities of any one series need not be issued at the same time and, unless otherwise so provided by the Company, a series may be reopened for issuances of additional Securities of such series or to establish additional terms of such series of Securities. If any of the terms of the Securities of any series shall be established by action taken by or pursuant to a Board Resolution, the Board Resolution shall be delivered to the Trustee at or prior to the delivery of the Officer's Certificate setting forth the terms of such series.

Section 3.2 Currency; Denominations

Unless otherwise provided in or pursuant to this Indenture or any Security, the principal of, any premium and interest on and any Additional Amounts with respect to, the Securities shall be payable in Dollars. Unless otherwise provided in or pursuant to this Indenture, Registered Securities denominated in Dollars shall be issuable in registered form without coupons in denominations of \$1,000 or any integral multiple of \$1,000 in excess thereof. Securities not denominated in Dollars shall be issuable in such denominations as are established with respect to such Securities in or pursuant to this Indenture.

Section 3.3 Execution; Authentication; Delivery and Dating

Securities shall be executed on behalf of the Company by any Officer of the Company. The signature of any such Officer on the Securities may be manual or facsimile.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper Officers of the Company shall bind the Company, notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities, executed by the Company, to the Trustee for authentication and, provided that the Board Resolution and Officer's Certificate or supplemental indenture or indentures with respect to such Securities referred to in Section 3.1 and a Company Order for the authentication and delivery of such Securities have been delivered to the Trustee, the Trustee in accordance with the Company Order and subject to the provisions hereof and of such Securities shall authenticate and deliver such Securities. In

authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be provided with, and (subject to Sections 315(a) through 315(d) of the Trust Indenture Act) shall be fully protected in relying upon an Opinion of Counsel and an Officer's Certificate that contain the statements required by Section 1.2.

The Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 3.1 and of the preceding paragraph, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver the Officer's Certificate or Company Order otherwise required pursuant to such preceding paragraph at or prior to the authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued. This paragraph shall not be applicable to Securities of a series that are issued as part of a reopening pursuant to the last paragraph of Section 3.1.

Each Registered Security shall be dated the date of its authentication.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose, unless there appears on such Security a certificate of authentication substantially in the form provided for in Section 2.2 or Section 6.12 executed by or on behalf of the Trustee or by the Authenticating Agent by the manual signature of one of its authorized signatories. Such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder.

Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.9, for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

Section 3.4 Temporary Securities

Pending the preparation of Definitive Securities, the Company may execute and deliver to the Trustee and, upon Company Order, the Trustee shall authenticate and deliver, in the manner provided in Section 3.3, temporary Securities in lieu thereof which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the Definitive Securities in lieu of which they are issued, in registered form and with such appropriate insertions, omissions, substitutions and other variations as the Officers of the Company executing such Securities may determine, as conclusively evidenced by their execution of such Securities. Such temporary Securities may be in the form of Global Securities.

Except in the case of temporary Global Securities, which shall be exchanged in accordance with the provisions thereof, if temporary Securities are issued, the Company shall cause Definitive Securities to be prepared without unreasonable delay. After the preparation of Definitive Securities of the same series and containing terms and provisions that are identical to those of any temporary Securities, such temporary Securities shall be exchangeable for such Definitive Securities upon surrender of such temporary Securities at an Office or Agency for such Securities, without charge to any Holder thereof. Upon surrender for cancellation of any one or more temporary Securities, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of Definitive Securities of authorized denominations of the same series and containing identical terms and provisions. Unless otherwise provided in or pursuant to this Indenture with respect to a temporary Global Security, until so exchanged the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as Definitive Securities of such series.

Section 3.5 Registration; Transfer and Exchange

With respect to the Registered Securities of each series, if any, the Company shall cause to be kept a register (each such register being herein sometimes referred to as the "Security Register") at an Office or Agency for such series in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of the Registered Securities of such series and of transfers of the Registered Securities of such series.

Such Office or Agency shall be the "Security Registrar" or "Registrar" for that series of Securities. Unless otherwise specified in or pursuant to this Indenture or the Securities, the Trustee shall be the initial Security Registrar for each series of Securities.

The Company shall have the right to remove and replace from time to time the Security Registrar for any series of Securities; provided that no such removal or replacement shall be effective until a successor Security Registrar with respect to such series of Securities shall have been appointed by the Company and shall have accepted such appointment by the Company. In the event that the Trustee shall not be or shall cease to be Security Registrar with respect to a series of Securities, it shall have the right to examine the Security Register for such series at all reasonable times. There shall be only one Security Register for each series of Securities.

A Global Security may not be transferred as a whole except by the Depository to a nominee of the Depository, by a nominee of the Depository to the Depository or to another nominee of the Depository, or by the Depository or any such nominee to a successor Depository or a nominee of such successor Depository. Notwithstanding the foregoing, except as may be provided pursuant to Section 3.1, any Global Security or any beneficial interest therein shall be exchangeable for Definitive Securities only if (i) the Depository is at any time unwilling, unable or ineligible to continue as Depository and a successor Depository is not appointed by the Company within 90 days of the date the Company is so informed in writing, (ii) the Depository ceases to be a clearing agency registered under the Exchange Act, (iii) the Company (subject to the Applicable Procedures) executes and delivers to the Trustee a Company Order to the effect that such Global Security shall be so exchangeable or (iv) an Event of Default has occurred and is continuing with respect to such Securities. If the holder of a Global Security or the beneficial owners of interests in a Global Security are entitled to exchange such interests for Definitive Securities as the result of an event specified in clause (i), (ii), (iii) or (iv) of the preceding sentence, the Company shall promptly make available to the Trustee Definitive Securities in such form and denominations as are required by or pursuant to this Indenture, and of the same series, containing identical terms and in aggregate principal amount equal to the principal amount of such Global Security, executed by the Company. Such Global Security shall be surrendered from time to time by the U.S. Depository or such other Depository as shall be specified in the Company Order with respect thereto, and in accordance with instructions given to the Trustee and the U.S. Depository or such other Depository, as the case may be (which instructions shall be in writing but need not be contained in or accompanied by an Officer's Certificate or be accompanied by an Opinion of Counsel), as shall be specified in the Company Order with respect thereto to the Trustee, as the Company's agent for such purpose, to be exchanged, in whole or in part, for Definitive Securities as described above without charge. The Trustee shall authenticate and make available for delivery, in exchange for each portion of such surrendered Global Security, a like aggregate principal amount of Definitive Securities of the same series of authorized denominations and of like tenor as the portion of such Global Security to be exchanged; provided, however, that no such exchanges may occur during a period beginning at the opening of business 15 days before any selection of Securities of the same series to be redeemed and ending on the relevant Redemption Date. Promptly following any such exchange in part, such Global Security shall be returned by the Trustee to such Depository or the U.S. Depository, as the case may be, or such other Depository or U.S. Depository referred to above in accordance with the instructions of the Company referred to above. If a Registered portion of a Global Security is exchanged for Definitive Registered Securities after the close of business at the Office or Agency for such Security where such exchange occurs on or after (i) any Regular Record Date for such Security and before the opening of business at such Office or Agency on the next Interest Payment Date, or (ii) any Special Record Date for such Security and before the opening of business at such Office or Agency on the related proposed date for payment of interest or Defaulted Interest, as the case may be, interest shall not be payable on such Interest Payment Date or proposed date for payment, as the case may be, in respect of such Definitive Registered Security, but shall be payable on such Interest Payment Date or proposed date for payment, as the case may be, only to the Person to whom interest in respect of such portion of such Global Security shall be payable in accordance with the provisions of this Indenture.

The transfer and exchange of beneficial interests in the Global Securities shall be effected through the Depository, in accordance with the provisions of this Indenture and the Applicable Procedures. Transfers and exchanges of beneficial interests in the Global Securities also shall require compliance with either subparagraph (1) or (2) below, as applicable, as well as one or more of the other following paragraphs, as applicable:

(1) Beneficial interests in any Global Security may be transferred to Persons who take delivery thereof in the form of a beneficial interest in the same Global Security. No written orders or instructions shall be required to be delivered to the Registrar to effect the transfers described in this subparagraph (1).

(2) In connection with the transfer or exchange of beneficial interests in any Global Security to Persons who take delivery thereof in the form of a beneficial interest in a different Global Security, the transferor of such beneficial interest must deliver to the Registrar (i) an order from a Participant or an Indirect Participant given to the Depository in accordance with the Applicable Procedures directing the Depository to credit or cause to be credited a beneficial interest in another Global Security in an amount equal to the beneficial interest to be transferred or exchanged and (ii) instructions given in accordance with the Applicable Procedures containing information regarding the Participant account to be credited with such increase. Upon satisfaction of all of the requirements for transfer or exchange of beneficial interests in Global Securities contained in this Indenture and such Securities or otherwise applicable under the Securities Act, the Trustee shall adjust the principal amount of the relevant Global Security(s) pursuant to this paragraph.

If any Holder of a beneficial interest in a Global Security proposes to exchange such beneficial interest for a Definitive Security or to transfer such beneficial interest to a Person who takes delivery thereof in the form of a Definitive Security in the event of the occurrence of any of the conditions set forth in the third paragraph of this Section 3.5, then, upon delivery to the Registrar of (i) an order from a Participant or an Indirect Participant given to the Depositary in accordance with the Applicable Procedures directing the Depositary to cause to be issued a Definitive Security in an amount equal to the beneficial interest to be transferred or exchanged and (ii) instructions given by the Depositary to the Registrar containing information regarding the Person in whose name such Definitive Security shall be registered to effect the transfer or exchange referred to in clause (i), the Trustee shall cause the aggregate principal amount of the applicable Global Security to be reduced accordingly as described below, and the Company shall execute and, upon receipt of a Company Order pursuant to Section 3.3, the Trustee shall authenticate and deliver to the Person designated in the instructions a Definitive Security in the appropriate principal amount. Any Definitive Security issued in exchange for a beneficial interest pursuant to this paragraph shall be registered in such name or names and in such authorized denomination or denominations as the Holder of such beneficial interest shall instruct the Registrar through instructions from the Depositary and the Participant or Indirect Participant. The Trustee shall deliver such Definitive Securities to the Persons in whose names such Securities are so registered.

A Holder of a Definitive Security may exchange such Security for a beneficial interest in a Global Security or transfer such Definitive Securities to a Person who takes delivery thereof in the form of a beneficial interest in a Global Security at any time. Upon receipt of a request for such an exchange or transfer, the Trustee shall cancel the applicable Definitive Security and increase or cause to be increased the aggregate principal amount of the applicable Global Security.

At the option of the Holder, Definitive Securities of any series may be exchanged for other Definitive Securities of the same series, of any authorized denominations and of like tenor and aggregate principal amount, upon surrender of the Definitive Securities to be exchanged at an Office or Agency. Whenever any Definitive Securities are so surrendered for exchange, the Company shall execute, and the Trustee shall authenticate and deliver, the Definitive Securities which the Holder making the exchange is entitled to receive.

Upon request by a Holder of Definitive Securities and such Holder's compliance with the provisions of this paragraph, the Registrar shall register the transfer or exchange of Definitive Securities. Prior to such registration of transfer or exchange, the requesting Holder shall present or surrender to the Registrar the Definitive Securities duly endorsed or accompanied by a written instruction of transfer in form satisfactory to the Registrar duly executed by such Holder or by its attorney, duly authorized in writing. A Holder of Definitive Securities may transfer such Securities to a Person who takes delivery thereof in the form of a Definitive Security. Upon receipt of a request to register such a transfer, the Registrar shall register the Definitive Securities pursuant to the instructions from the Holder thereof.

At such time as all beneficial interests in a particular Global Security have been exchanged for Definitive Securities or a particular Global Security has been redeemed, repurchased or cancelled in whole and not in part, each such Global Security shall be returned to or retained and cancelled by the Trustee in accordance with Section 3.9. At any time prior to such cancellation, if any beneficial interest in a Global Security is exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security or for Definitive Securities, the principal amount of Securities represented by such Global Security shall be reduced accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depositary at the direction of the Trustee to reflect such reduction; and if the beneficial interest is being exchanged for or transferred to a Person who will take delivery thereof in the form of a beneficial interest in another Global Security, the principal amount of Securities represented by such other Global Security shall be increased accordingly and an endorsement shall be made on such Global Security by the Trustee or by the Depositary at the direction of the Trustee to reflect such increase.

All Securities issued upon any registration of transfer or exchange of Securities shall be the valid and legally binding obligations of the Company evidencing the same debt and entitling the Holders thereof to the same benefits under this Indenture as the Securities surrendered upon such registration of transfer or exchange.

Every Registered Security presented or surrendered for registration of transfer or for exchange or redemption shall (if so required by the Company or the Security Registrar for such Security) be duly endorsed, signature guaranteed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar for such Security duly executed by the Holder thereof, signature guaranteed, or his or her attorney duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange, or redemption of Securities, but the Company may

require payment of a sum sufficient to cover any tax or other governmental charge and any other expenses (including fees and expenses of the Trustee) that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Sections 3.4, 3.6, 9.6 and 11.7 not involving any transfer.

Except as otherwise provided in or pursuant to this Indenture, the Company shall not be required (i) to issue, register the transfer of or exchange any Securities during a period beginning at the opening of business 15 days before the day of selection of Securities of like tenor and the same series under Section 11.3 for redemption and ending at the close of business on the day of such selection, (ii) to register the transfer of or exchange any Registered Security so selected for redemption in whole or in part, except in the case of any Security to be redeemed in part, the portion thereof not to be redeemed, or (iii) to issue, register the transfer of or exchange any Security which, in accordance with its terms, has been surrendered for repayment or purchase at the option of the Holder, except the portion, if any, of such Security not to be so repaid.

The Registrar shall retain copies of all certificates, notices and other written communications received pursuant to this Section 3.5. The Company shall have the right to inspect and make copies of all such certificates, notices or other written communications at any reasonable time upon the giving of reasonable written notice to the Registrar.

All certifications and certificates required to be submitted to the Registrar pursuant to this Section 3.5 to effect a registration of transfer or exchange may be submitted by facsimile, with an original of such document to be sent promptly thereafter.

Section 3.6 Mutilated, Destroyed, Lost and Stolen Securities

If any mutilated Security is surrendered to the Trustee, subject to the provisions of this Section 3.6, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series containing identical terms and of like principal amount and bearing a number not contemporaneously outstanding.

If there be delivered to the Company and to the Trustee (i) evidence to their satisfaction of the destruction, loss or theft of any Security and (ii) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or to a Responsible Officer that such Security has been acquired by a "protected purchaser" (as such term is defined in the New York Uniform Commercial Code), the Company shall execute and, upon the Company's request the Trustee shall authenticate and deliver, in exchange for or in lieu of any such destroyed, lost or stolen Security, a new Security of the same series containing identical terms and of like principal amount and bearing a number not contemporaneously outstanding.

Notwithstanding the foregoing provisions of this Section 3.6, in case any mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

Upon the issuance of any new Security under this Section 3.6, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security issued pursuant to this Section 3.6 in lieu of any destroyed, lost or stolen Security shall constitute a separate obligation of the Company, whether or not the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of such series duly issued hereunder.

The provisions of this Section 3.6, as amended or supplemented pursuant to this Indenture with respect to particular Securities or generally, shall be exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

Section 3.7 Payment of Interest and Certain Additional Amounts; Rights to Interest and Certain Additional Amounts Preserved

Unless otherwise provided in or pursuant to this Indenture, any interest on and any Additional Amounts with respect to, any Registered Security that shall be payable, and are punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name such Security (or one or more Predecessor Securities) is registered as of the close of business on the Regular Record Date for such interest.

Unless otherwise provided in or pursuant to this Indenture, any interest on and any Additional Amounts with respect to, any Registered Security that shall be payable, but shall not be punctually paid or duly provided for, on any Interest Payment Date for such Registered Security (herein called “Defaulted Interest”) shall forthwith cease to be payable to the Holder thereof on the relevant Regular Record Date by virtue of having been such Holder; and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (1) or (2) below:

(1) The Company may elect to make payment of any Defaulted Interest to the Person in whose name such Registered Security (or a Predecessor Security thereof) shall be registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on such Registered Security and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit on or prior to the date of the proposed payment, such money when so deposited to be held in trust for the benefit of the Person entitled to such Defaulted Interest as in this clause provided. Thereupon, the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to the Holder of such Registered Security (or a Predecessor Security thereof) at his address as it appears in the Security Register not less than 10 days prior to such Special Record Date. The Trustee may, in its discretion, in the name and at the expense of the Company, cause a similar notice to be published at least once in an Authorized Newspaper of general circulation in the Borough of Manhattan, The City of New York, but such publication shall not be a condition precedent to the establishment of such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been mailed as aforesaid, such Defaulted Interest shall be paid to the Person in whose name such Registered Security (or a Predecessor Security thereof) shall be registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (2).

(2) The Company may make payment of any Defaulted Interest in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Security may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such payment shall be deemed practicable by the Trustee.

Unless otherwise provided in or pursuant to this Indenture or the Securities of any particular series pursuant to the provisions of this Indenture, at the option of the Company, interest on Registered Securities that bear interest may be paid by wire transfer in immediately available funds if the Holder of the Registered Security has provided to the Company and the Trustee wire instructions at least five Business Days prior to the applicable payment date or by check mailed to the address of that Holder as it appears on the books of the Securities Registrar if that Holder has not provided wire instructions; provided that any payment of principal (or premium, if any) in respect of any Security will be made only upon presentation and surrender of such Security at the applicable Office or Agency.

Subject to the foregoing provisions of this Section 3.7 and Section 3.5, each Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

In the case of any Registered Security of any series that is convertible, which Registered Security is converted after any Regular Record Date and on or prior to the immediately succeeding Interest Payment Date (other than any Registered Security with respect to which the Maturity is prior to such Interest Payment Date), interest on such Interest Payment Date shall be payable on such Interest Payment Date notwithstanding such conversion, and such interest (whether or not punctually paid or duly provided for) shall be paid to the Person in whose name that Registered Security (or one or more predecessor Registered Securities) is registered at the close of business on such Regular Record Date. Except as otherwise expressly provided in the immediately preceding sentence, in the case of any Registered Security which is converted, interest with respect to which the Stated Maturity is after the date of conversion of such Registered Security shall not be payable.

Section 3.8 Persons Deemed Owners

Prior to due presentment of a Registered Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name such Registered Security is registered in the Security Register as the owner of such Registered Security for the purpose of receiving payment of principal of, any premium and (subject to

Section 3.5 and Section 3.7) interest on and any Additional Amounts with respect to, such Registered Security and for all other purposes whatsoever, whether or not any payment with respect to such Registered Security shall be overdue, and none of the Company, the Trustee or any agent of the Company or the Trustee shall be affected by notice to the contrary.

No holder of any beneficial interest in any Global Security held on its behalf by a Depositary shall have any rights under this Indenture with respect to such Global Security, and such Depositary may be treated by the Company, the Trustee and any agent of the Company or the Trustee as the owner of such Global Security for all purposes whatsoever. None of the Company, the Trustee, any Paying Agent or the Security Registrar will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

Section 3.9 Cancellation

All Securities surrendered for payment, redemption, registration of transfer, exchange or conversion or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee, and any such Securities, as well as Securities surrendered directly to the Trustee for any such purpose, shall be cancelled promptly by the Trustee. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and all Securities so delivered shall be cancelled promptly by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities cancelled as provided in this Section 3.9, except as expressly permitted by or pursuant to this Indenture. All cancelled Securities held by the Trustee shall be disposed of by the Trustee in accordance with its customary procedures.

Section 3.10 Computation of Interest

Except as otherwise provided in or pursuant to this Indenture, or in any Security, interest on the Securities shall be computed on the basis of a 360-day year of twelve 30-day months.

Section 3.11 CUSIP and ISIN Numbers

The Company in issuing the Securities may use “CUSIP” and “ISIN” numbers (if then generally in use), and, if so, the Trustee shall use CUSIP and ISIN numbers in notices of redemption as a convenience to Holders; provided that any such notice may state that no representation is made as to the correctness of such numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such numbers. The Company will promptly notify the Trustee of any change in the CUSIP and ISIN numbers.

ARTICLE 4

SATISFACTION AND DISCHARGE OF INDENTURE

Section 4.1 Satisfaction and Discharge

Upon the direction of the Company by a Company Order, this Indenture shall cease to be of further effect with respect to any series of Securities specified in such Company Order and the Trustee, on receipt of a Company Order, at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture as to such series, when

(1) either

(a) all Securities of such series theretofore authenticated and delivered have been delivered to the Trustee for cancellation (other than (i) Securities of such series that have been destroyed, lost or stolen and have been replaced or paid as provided in Section 3.6 and (ii) Securities of such series the payment of money for which has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 10.3); or

(b) all Securities of such series not theretofore delivered to the Trustee for cancellation:

(i) have become due and payable, or

(ii) will become due and payable at their Stated Maturity within one year, or

(iii) if redeemable at the option of the Company, are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (i), (ii) or (iii) above, has deposited or caused to be deposited with the Trustee as trust funds in trust for such purpose, (x) money in an amount or (y) Government Obligations that through the payment of interest and principal in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment, in the opinion of a nationally recognized Independent Registered Public Accounting Firm expressed in a written certification thereof delivered to the Trustee, money in the amount, or (z) a combination of (x) and (y) in an amount in the Currency in which such series of Securities are payable sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, including the principal of, any premium and interest on, and any Additional Amounts with respect to such Securities then determinable, to the date of such deposit (in the case of Securities which have become due and payable) or to the Maturity thereof, as the case may be;

(2) the Company has paid or caused to be paid all other sums payable hereunder by the Company with respect to the Outstanding Securities of such series; and

(3) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture as to such series have been complied with.

In the event there are Securities of two or more series hereunder, the Trustee shall be required to execute an instrument acknowledging satisfaction and discharge of this Indenture only if requested to do so with respect to Securities of such series as to which it is Trustee and if the other conditions thereto are met.

Notwithstanding the satisfaction and discharge of this Indenture with respect to any series of Securities, the obligations of the Company to the Trustee under Section 6.7, the obligations of the Trustee under Section 4.3, if money, Government Obligations or a combination thereof shall have been deposited with the Trustee pursuant to subclause (b) of clause (1) of this Section 4.1, the obligations of the Company and the Trustee with respect to the Securities of such series under Section 3.4, Section 3.5, Section 3.6, Section 10.2 and Section 10.3, and the obligations of the Company with respect to the payment of Additional Amounts, if any, with respect to such Securities as contemplated by Section 10.4 (but only to the extent that the Additional Amounts payable with respect to such Securities exceed the amount deposited in respect of such Additional Amounts pursuant to Section 4.1(1)(b)), and with respect to any rights to convert or exchange such Securities into Common Stock or other securities, cash or other property shall survive such satisfaction and discharge.

Section 4.2 Defeasance and Covenant Defeasance

(1) Unless pursuant to Section 3.1, either or both of (i) defeasance of the Securities of a series under clause (2) of this Section 4.2 shall not be applicable with respect to the Securities of such series or (ii) covenant defeasance of the Securities of a series under clause (3) of this Section 4.2 shall not be applicable with respect to the Securities of such series, then such provisions, together with the other provisions of this Section 4.2 (with such modifications thereto as may be specified pursuant to Section 3.1 with respect to any Securities), shall be applicable to such Securities, and the Company may at its option by Board Resolution, at any time, with respect to such Securities, elect to have Section 4.2(2) or Section 4.2(3) be applied to such Outstanding Securities upon compliance with the conditions set forth below in this Section 4.2.

(2) Upon the Company's exercise of the above option applicable to this Section 4.2(2) with respect to any Securities of or within a series, the Company shall be deemed to have been discharged from its obligations with respect to such Outstanding Securities on the date the conditions set forth in clause (4) of this Section 4.2 are satisfied (hereinafter, "defeasance"). For this purpose, such defeasance means that the Company shall be deemed to have paid and discharged the entire indebtedness represented by such Outstanding Securities, which shall thereafter be deemed to be "Outstanding" only for the purposes of the Sections of this Indenture referred to in clauses (i) and (ii) below, and to have satisfied all of its other obligations under such Securities and this Indenture insofar as such Securities are concerned (and the Trustee, at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following which shall survive until otherwise terminated or discharged hereunder: (i) the rights of Holders of such Outstanding Securities to receive, solely from the trust fund described in clause (4) of this Section 4.2 and as more fully set forth in such Section, payments in respect of the principal of (and premium, if any) and interest, if any, on, and Additional Amounts, if any, with respect to, such Securities when such payments

are due, and any rights of such Holder to convert or exchange such Securities into Common Stock or other securities, cash or other property, (ii) the obligations of the Company and the Trustee with respect to such Securities under Section 3.4, Section 3.5, Section 3.6, Section 10.2 and Section 10.3 and the obligations of the Company with respect to the payment of Additional Amounts, if any, on such Securities as contemplated by Section 10.4 (but only to the extent that the Additional Amounts payable with respect to such Securities exceed the amount deposited in respect of such Additional Amounts pursuant to Section 4.2(4)(a) below), and with respect to any rights to convert or exchange such Securities into Common Stock or other securities, cash or other property, (iii) the rights, powers, trusts, duties and immunities of the Trustee hereunder and (iv) this Section 4.2. The Company may exercise its option under this Section 4.2(2) notwithstanding the prior exercise of its option under clause (3) of this Section 4.2 with respect to such Securities.

(3) Upon the Company's exercise of the above option applicable to this Section 4.2(3) with respect to any Securities of or within a series, (i) the Company shall be released from its obligations to comply with any term, provision or condition under Section 8.1 with respect to such Securities (and, to the extent specified pursuant to Section 3.1, any other restrictive covenant added for the benefit of such Securities) and (ii) unless otherwise specified pursuant to Section 3.1, the occurrence of any event specified in Section 5.1(7) shall not be deemed to be an Event of Default, in each case on and after the date the conditions set forth in clause (4) of this Section 4.2 are satisfied (hereinafter, "covenant defeasance"), and such Securities shall thereafter be deemed to be not "Outstanding" for the purposes of any direction, waiver, consent or declaration or Act of Holders (and the consequences of any thereof) in connection with any such covenant, but shall continue to be deemed "Outstanding" for all other purposes hereunder. For this purpose, such covenant defeasance means that, with respect to such Outstanding Securities, the Company may omit to comply with, and shall have no liability in respect of, any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any covenant or by reason of reference in any such covenant to any other provision herein or in any other document and such omission to comply shall not constitute a default or an Event of Default under Section 5.1(4), Section 5.1(7) or otherwise, as the case may be, insofar as it relates to Section 8.1 and, to the extent specified pursuant to Section 3.1, any other restrictive covenant added for the benefit of such Security, but, except as specified above, the remainder of this Indenture and such Securities shall be unaffected thereby; provided that the obligations of the Company with respect to the payment of Additional Amounts, if any, on such Securities as contemplated by Section 10.4 shall remain unsatisfied only to the extent that the Additional Amounts payable with respect to such Securities exceed the amount deposited in respect of such Additional Amounts pursuant to Section 4.2(4)(a) below; *provided, further*, that notwithstanding a covenant defeasance with respect to Section 8.1, any Person to whom a sale, assignment, transfer, lease, conveyance or other disposition is made pursuant to Section 8.1, shall as a condition to such sale, assignment, transfer, lease, conveyance or other disposition, assume by an indenture supplemental hereto in form satisfactory to the Trustee, executed by such successor Person and delivered to the Trustee, the obligations of the Company to the Trustee under Section 6.7 and the second to the last paragraph of Section 4.2.

(4) The following shall be the conditions to the application of clause (2) or (3) of this Section 4.2 to any Outstanding Securities of a series:

(a) The Company shall irrevocably have deposited or caused to be deposited with the Trustee (or another trustee satisfying the requirements of Section 6.8 who shall agree to comply with the provisions of this Section 4.2 applicable to it) as trust funds in trust for the purpose of making the following payments, specifically pledged as security for, and dedicated solely to, the benefit of the Holders of such Securities, (1) an amount in Dollars or in such Foreign Currency in which such Securities are then specified as payable at Stated Maturity, or (2) Government Obligations applicable to such Securities (determined on the basis of the Currency in which such Securities are then specified as payable at Stated Maturity), which through the scheduled payment of principal and interest in respect thereof in accordance with their terms will provide, not later than one day before the due date of any payment of principal of (and premium, if any) and interest, if any, on such Securities, money in an amount, or (3) a combination thereof, in any case, in an amount, sufficient, without consideration of any reinvestment of such principal and interest, in the opinion of a nationally recognized Independent Registered Public Accounting Firm expressed in a written certification thereof delivered to the Trustee, to pay and discharge, and which shall be applied by the Trustee (or other qualifying trustee) to pay and discharge, (y) the principal of (and premium, if any) and interest or Additional Amounts then determinable, if any, on such Outstanding Securities at the Maturity of such principal or installment of principal or interest, provided that the Company shall specify whether such Outstanding Securities are being defeased to Stated Maturity or to the Redemption Date and (z) any mandatory sinking fund payments or analogous payments applicable to such Outstanding Securities on the day on which such payments are due and payable in accordance with the terms of this Indenture and of such Securities.

(b) Such defeasance or covenant defeasance shall not result in a breach or violation of, or constitute a default under, this Indenture or any other material agreement or instrument to which the Company is a party or by which it is bound.

(c) No Event of Default or event that, with notice or lapse of time or both, would become an Event of Default with respect to

such Securities shall have occurred and be continuing on the date of such deposit (other than an Event of Default resulting from non-compliance with any covenant from which the Company is released upon effectiveness of such defeasance or covenant defeasance, as applicable).

(d) In the case of an election under clause (2) of this Section 4.2, the Company shall have delivered to the Trustee an Opinion of Counsel stating that:

(i) the Company has received from the Internal Revenue Service a letter ruling, or there has been published by the Internal Revenue Service a Revenue Ruling, or

(ii) since the date of execution of this Indenture, there has been a change in the applicable federal income tax law,

in either case to the effect that, and based thereon such opinion shall confirm that, subject to customary assumptions and exclusions, the Holders of such Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such defeasance had not occurred.

(e) In the case of an election under clause (3) of this Section 4.2, the Company shall have delivered to the Trustee an Opinion of Counsel to the effect that, subject to customary assumptions and exclusions, the Holders of such Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such covenant defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such covenant defeasance had not occurred.

(f) The Company shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that all conditions precedent to the defeasance or covenant defeasance under clause (2) or (3) of this Section 4.2 (as the case may be) have been complied with.

(g) If the Securities are to be redeemed prior to their Stated Maturity (other than from mandatory sinking fund payments or analogous payments), notice of such redemption shall have been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee shall have been made.

(h) Notwithstanding any other provisions of this Section 4.2(4), such defeasance or covenant defeasance shall be effected in compliance with any additional or substitute terms, conditions or limitations which may be imposed on the Company in connection therewith pursuant to Section 3.1.

The Company shall pay and indemnify the Trustee against any tax, fee or other charge, imposed on or assessed against the Government Obligations deposited pursuant to this Section 4.2 or the principal or interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of such Outstanding Securities.

Anything in this Section 4.2 to the contrary notwithstanding, the Trustee shall deliver or pay to the Company from time to time upon Company Request any money or Government Obligations (or other property and any proceeds therefrom) held by it as provided in clause (4) of this Section 4.2 which, in the opinion of a nationally recognized Independent Registered Public Accounting Firm expressed in a written certification thereof delivered to the Trustee, are in excess of the amount thereof which would then be required to be deposited to effect a defeasance or covenant defeasance, as applicable, in accordance with this Section 4.2.

Section 4.3 Application of Trust Money

Subject to the provisions of the last paragraph of Section 10.3, all money and Government Obligations (including the proceeds thereof) deposited with the Trustee or other qualifying trustee (solely for purposes of this Section 4.3, the Trustee and any such other trustee are referred to collectively as the "Trustee") pursuant to Section 4.1 or Section 4.2 in respect of any Outstanding Securities of any series shall be held in trust and applied by the Trustee, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal, premium, if any, interest and Additional Amounts, if any, for whose payment such money has or Government Obligations have been deposited with or received by the Trustee; but such money and Government Obligations need not be segregated from other funds except to the extent required by law.

Any trustee appointed pursuant to Section 4.2 for the purpose of holding trust funds deposited pursuant to that Section shall be appointed under an agreement in form acceptable to the Trustee and shall provide to the Trustee a certificate of such trustee, upon which certificate the Trustee shall be entitled to conclusively rely, that all conditions precedent provided for herein to the related defeasance or covenant defeasance have been complied with. In no event shall the Trustee be liable for any acts or omissions of said trustee.

ARTICLE 5

REMEDIES

Section 5.1

Events of Default

“Event of Default,” wherever used herein with respect to Securities of any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body), unless such event is specifically deleted or modified in or pursuant to the supplemental indenture, Board Resolution or Officer’s Certificate establishing the terms of such series pursuant to this Indenture:

- (1) default for 30 days in the payment when due of any interest on or any Additional Amount in respect of any Security of such series;
- (2) default in the payment of the principal of or any premium on any Security of such series when the principal or premium becomes due and payable at Maturity;
- (3) default in the deposit of any sinking fund payment when and as due by the terms of any Security of such series, subject to any cure period specified in any Security of such series;
- (4) failure on the part of the Company duly to observe or perform any other of the covenants or agreements (other than those described in clause (1), (2) or (3) above) on the part of the Company with respect to that series contained in such Securities or otherwise established with respect to that series of Securities pursuant to Section 3.1 hereof or contained in this Indenture (other than a covenant or agreement that has been expressly included in this Indenture solely for the benefit of one or more series of Securities other than such series), other than the covenant set forth in Section 7.4, and such failure shall continue for a period of 60 days after the date on which written notice of such failure, requiring the same to be remedied and stating that such notice is a “Notice of Default” shall have been given to the Company by the Trustee, upon direction of Holders of at least 25% in principal amount of the Outstanding Securities of that series; provided, however, that if such failure is not capable of cure within such 60-day period, such 60-day period shall be automatically extended by an additional 60 days so long as (i) such failure is subject to cure, and (ii) the Company is using commercially reasonable efforts to cure such failure; and provided, further, that a failure to comply with any such other agreement in the indenture that results from a change in GAAP shall not be deemed to be an Event of Default;
- (5) a decree or order by a court having jurisdiction in the premises shall have been entered adjudging the Company bankrupt or insolvent, or approving as properly filed a petition seeking liquidation or reorganization of the Company under any applicable bankruptcy, insolvency, reorganization or other similar law, and such decree or order shall have continued unvacated and unstayed for a period of 90 days; an involuntary case shall be commenced under any applicable bankruptcy, insolvency, reorganization or other similar law in respect of the Company and shall continue undismissed for a period of 90 days or an order for relief in such case shall have been entered and such order shall have remained in force unvacated and unstayed for a period of 90 days; or a decree or order of a court having jurisdiction in the premises shall have been entered for the appointment on the ground of insolvency or bankruptcy of a receiver, custodian, liquidator, trustee or assignee in bankruptcy or insolvency of the Company or of its property, or for the winding up or liquidation of its affairs, and such decree or order shall have remained in force unvacated and unstayed for a period of 90 days;
- (6) the Company shall institute proceedings to be adjudicated a voluntary bankrupt, shall consent to the filing of a bankruptcy proceeding against it, shall file a petition or answer or consent seeking liquidation or reorganization under any applicable bankruptcy, insolvency, reorganization or other similar law, shall consent to the filing of any such petition or shall consent to the appointment on the ground of insolvency or bankruptcy of a receiver or custodian or liquidator or trustee or assignee in bankruptcy or insolvency of it or of its property, or shall make a general assignment for the benefit of creditors; or

(7) any other Event of Default provided in or pursuant to the Indenture with respect to Securities of the series, provided that any such Event of Default that results from a change in GAAP shall not be deemed to be an Event of Default.

Section 5.2 Acceleration of Maturity; Rescission and Annulment

If an Event of Default specified in clause (5) or (6) of the definition thereof above occurs, the principal of all Securities shall automatically become due and payable without further action or notice, anything contained in this Indenture or the Securities of each series or established with respect to each series pursuant to Section 3.1 to the contrary notwithstanding. If (a) upon the occurrence and continuance of an Event of Default specified in clause (1) or (2) of the definition thereof, the Company and the Trustee receive notice in writing that Holders of not less than 25% in aggregate principal amount of the Outstanding Notes of that series, or (b) upon the occurrence and continuance of any other Event of Default other than an Event of Default specified in clause (1), (2), (5) and (6) of the definition thereof, the Company and the Trustee receive notice in writing that Holders of not less than a majority in aggregate principal amount of the Outstanding Notes of that series, have declared the principal of all Securities of that series to be due and payable immediately, then upon any such declaration the same shall become and shall be immediately due and payable, anything contained in this Indenture or in the Securities of that series or established with respect to that series to the contrary notwithstanding.

At any time after a declaration of acceleration or automatic acceleration with respect to the Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereafter in this Article 5 provided, the Holders of not less than a majority in principal amount of the Outstanding Securities of such series, by written notice to the Company and the Trustee, may rescind and annul the declaration or automatic acceleration and its consequences if:

(1) the Company has paid or deposited with the Trustee a sum of money sufficient to pay (A) all overdue installments of interest on all Securities of such series and any Additional Amounts payable with respect thereto, (B) the principal of and any premium on any Securities of the series which have become due otherwise than by the declaration of acceleration or automatic acceleration and interest thereon and any Additional Amounts with respect thereto at the rate or rates borne by or provided in such Securities, (C) interest upon overdue interest at the rate or rates prescribed therefor in such Securities and (D) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(2) all Events of Default with respect to Securities of such series, other than the non-payment of the principal of, any premium and interest on, and any Additional Amounts with respect to, Securities of such series which shall have become due solely by the acceleration, shall have been cured or waived as provided in Section 5.3.

The sole remedy of the Holders for any failure on the part of the Company to duly observe or perform the covenants and agreements set forth in Section 7.4 shall be the right to receive Additional Interest if and to the extent required by any Security, under the circumstances specified therein.

Section 5.3 Collection of Indebtedness and Suits for Enforcement by Trustee

The Company covenants that if:

(1) default is made in the payment of any installment of interest on any Security, or any Additional Amounts payable with respect thereto, when such interest or Additional Amounts shall have become due and payable and such default continues for any cure period specified with respect to such Security,

(2) default is made in the payment of any principal of or premium, if any, on, or any Additional Amounts payable in respect of any principal of or premium, if any, on any Security at its Maturity; or

(3) default is made in the deposit of any sinking fund payment, when and as due by the terms of any Security and such default continues for any cure period specified with respect to such Security;

the Company shall, upon demand of the Trustee, pay to the Trustee, for the benefit of the Holders of such Securities, the whole amount of money then due and payable with respect to such Securities, with interest upon the overdue principal, any premium and, to the extent that payment of such interest shall be legally enforceable, upon any overdue installments of interest and Additional Amounts at the rate or rates borne by or provided for in such Securities, and, in addition thereto, such further amount of money as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel and all other amounts due to the Trustee under Section 6.7.

If the Company fails to pay the money it is required to pay the Trustee pursuant to the preceding paragraph forthwith upon the demand of the Trustee, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the money so due and unpaid, and may prosecute such proceeding to judgment or final decree, and may enforce the same against the Company or any other obligor upon such Securities and collect the monies adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to the Securities of any series occurs and is continuing, the Trustee may, and if (A) an Event of Default specified in clause (1), (2), (5) or (6) of the definition thereof occurs and is continuing, and Holders of not less than 25% in aggregate principal amount of the Outstanding Securities of such series direct, or (B) an Event of Default other than an Event of Default specified in clause (1), (2), (5) or (6) of the definition thereof occurs and is continuing, and Holders of not less than a majority in aggregate principal amount of the Outstanding Securities of such series direct, so long as such Holders shall have provided the Trustee with such indemnity as it shall require and subject to the provisions of Section 5.12, the Trustee shall, proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or such Securities or in aid of the exercise of any power granted herein or therein, or to enforce any other proper remedy.

Section 5.4 Trustee May File Proofs of Claim

In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities or the property of the Company or such other obligor or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of any overdue principal, premium, interest or Additional Amounts) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(1) to file and prove a claim for the whole amount, or such lesser amount as may be provided for in the Securities of such series, of the principal and any premium, interest and Additional Amounts owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents or counsel) and of the Holders of Securities allowed in such judicial proceeding, and

(2) to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder of Securities to make such payments to the Trustee and, in the event that the Trustee shall consent to the making of such payments directly to the Holders of Securities, to pay to the Trustee any amount due to it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel and any other amounts due the Trustee under Section 6.7.

Nothing herein contained shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder of a Security any plan of reorganization, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof, or to authorize the Trustee to vote in respect of the claim of any Holder of a Security in any such proceeding.

Section 5.5 Trustee May Enforce Claims without Possession of Securities

All rights of action and claims under this Indenture or any of the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery or judgment, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, shall be for the ratable benefit of each and every Holder of a Security in respect of which such judgment has been recovered.

Section 5.6 Application of Money Collected

Any money collected by the Trustee pursuant to this Article 5 with respect to Securities of any series shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal, or any premium, interest or Additional Amounts, upon presentation of such Securities, and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee and any predecessor Trustee under Section 6.7;

SECOND: To the payment of the amounts then due and unpaid upon such Securities for principal and any premium, interest and Additional Amounts in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the aggregate amounts due and payable on such Securities for principal and any premium, interest and Additional Amounts, respectively; and

THIRD: The balance, if any, to the Company.

Section 5.7 Limitations on Suits

No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless

(1) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of such series;

(2) (a) in the case of an Event of Default specified in clause (1), (2), (5) and (6) of the definition thereof, Holders of not less than 25%, or (b) in the case of an Event of Default other than as specified in clause (1), (2), (5) and (6) of the definition thereof, Holders of not less than a majority, in aggregate principal amount of the Outstanding Securities of such series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(3) such Holder or Holders have offered to the Trustee indemnity satisfactory to it against the costs, expenses and liabilities to be incurred in compliance with such request;

(4) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(5) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of such series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture or any Security to affect, disturb or prejudice the rights of any other such Holders or Holders of Securities of any other series, or to obtain or to seek to obtain priority or preference over any other Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

Section 5.8 Unconditional Right of Holders to Receive Principal and any Premium, Interest and Additional Amounts

Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of, any premium and (subject to Section 3.5 and Section 3.7) interest on, and any Additional Amounts with respect to, such Security, on the respective Stated Maturity or Maturities therefor specified in such Security (or, in the case of redemption, on the Redemption Date or, in the case of repayment at the option of such Holder if provided in or pursuant to this Indenture, on the date such repayment is due) and to institute suit for the enforcement of any such payment, and such right shall not be impaired without the consent of such Holder.

Section 5.9 Restoration of Rights and Remedies

If the Trustee or any Holder of a Security has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case the Company, the Trustee and each such Holder shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder, and thereafter all rights and remedies of the Trustee and each such Holder shall continue as though no such proceeding had been instituted.

Section 5.10 Rights and Remedies Cumulative

Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.6, no right or remedy herein conferred upon or reserved to the Trustee or to each and every Holder of a Security is intended to be exclusive of any other right or remedy, and every right and remedy, to the extent permitted by law, shall be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not, to the extent permitted by law, prevent the concurrent assertion or employment of any other appropriate right or remedy.

Section 5.11 Delay or Omission Not Waiver

No delay or omission of the Trustee or of any Holder of any Security to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article 5 or by law to the Trustee or to any Holder of a Security may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by such Holder, as the case may be.

Section 5.12 Control by Holders of Securities

The Holders of a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on the Trustee with respect to the Securities of such series, provided that:

- (1) such direction shall not be in conflict with any rule of law or with this Indenture or with the Securities of any series and would not involve the Trustee in personal liability,
- (2) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction, and
- (3) such direction is not unduly prejudicial to the rights of the other Holders of Securities of such series not joining in such action.

Section 5.13 Waiver of Past or Existing Defaults

The Holders of not less than a majority in principal amount of the Outstanding Securities of any series on behalf of the Holders of all the Securities of such series may waive any past or existing default or Event of Default hereunder with respect to such series and its consequences, except a continuing default:

- (1) in the payment of the principal of, any premium or interest on, or any Additional Amounts with respect to, any Security of such series, or
- (2) in respect of a covenant or provision hereof which under Article 9 hereof cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

Upon any such waiver, such default or Event of Default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture; but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

Section 5.14 Waiver of Stay or Extension Laws

The Company covenants that (to the extent that it may lawfully do so) it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company expressly waives (to the extent that it may lawfully do so) all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

All parties to this Indenture agree, and each Holder of any Security by his or her acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken or omitted by it as Trustee, the filing by any party litigant in such suit of any undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees and expenses, against any party litigant in such suit having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section 5.15 shall not apply to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of Outstanding Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium, if any) or interest, if any, on or Additional Amounts, if any, with respect to any Security on or after the respective Stated Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date, and, in the case of repayment, on or after the date for repayment) or for the enforcement of the right, if any, to convert or exchange any Security into Common Stock or other securities, cash or other property in accordance with its terms.

ARTICLE 6

THE TRUSTEE

Section 6.1

Certain Duties and Responsibilities

The duties and responsibilities of the Trustee shall be as provided by the Trust Indenture Act. Except during the continuance of an Event of Default with respect to the Securities of a series of which a Responsible Officer has actual knowledge, the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture with respect to such Securities, and no implied covenants or obligations shall be read into this Indenture with respect to such Securities against the Trustee. In case an Event of Default of which a Responsible Officer has actual knowledge with respect to the Securities of a series has occurred (which has not been cured or waived), the Trustee shall exercise the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, with respect to such Securities, as a prudent person would exercise or use under the circumstances in the conduct of such person's own affairs. Notwithstanding the foregoing, no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers. Whether or not therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section 6.1.

Section 6.2

Certain Rights of Trustee

Subject to the provisions of Section 6.1:

- (1) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, coupon, other evidence of indebtedness or other paper or document (whether in its original or facsimile form) believed by it to be genuine and to have been signed or presented by the proper party or parties;
- (2) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or a Company Order (in each case, other than delivery of any Security to the Trustee for authentication and delivery pursuant to Section 3.3 which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors of the Company may be sufficiently evidenced by a Board Resolution;
- (3) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence shall be herein specifically prescribed) may, in the absence of bad faith on its part, request and conclusively rely upon an Officer's Certificate;
- (4) the Trustee may consult with counsel of its selection and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;
- (5) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by or pursuant to this Indenture or to institute, conduct or defend any litigation hereunder or in relation hereto at the request or direction of any of the Holders of Securities of any series pursuant to this Indenture, unless such Holders shall have offered to the Trustee security or indemnity reasonably satisfactory to it against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(6) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, coupon, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may but shall not be obligated to make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine, during business hours and upon reasonable notice, the books, records and premises of the Company, personally or by agent or attorney at the expense of the Company and shall incur no liability or additional liability of any kind by reason of such inquiry or investigation;

(7) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents, attorneys or custodians and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent, attorney or custodians appointed with due care by it hereunder;

(8) the Trustee shall not be liable in its individual capacity for any action taken or suffered to be taken, unless it shall be proved that the Trustee was negligent, acted in bad faith or engaged in willful misconduct;

(9) the Authenticating Agent, Paying Agent, and Security Registrar shall have the same protections as the Trustee set forth hereunder;

(10) the Trustee shall not be liable in its individual capacity with respect to any action taken, suffered or omitted to be taken by it in good faith in accordance with this Indenture, and, to the extent not so provided herein, with respect to any act requiring the Trustee to exercise its own discretion, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture or any Securities, unless it shall be proved that, in connection with any such action taken, suffered or omitted or any such act, the Trustee was negligent, acted in bad faith or engaged in willful misconduct;

(11) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers;

(12) the Trustee shall not be charged with knowledge or required to take notice of any default or Event of Default with respect to the Securities unless either (A) a Responsible Officer shall have actual knowledge of such default or Event of Default or (B) written notice of such default or Event of Default, which references the Securities and this Indenture, shall have been given to a Responsible Officer by the Company or other obligor on such Securities or by any Holder of such Securities;

(13) the Trustee shall not be liable in its individual capacity for any action taken, suffered or omitted by it in good faith and reasonably believed by it to be authorized or within the discretion or rights or powers conferred upon it by this Indenture;

(14) the rights, privileges, protections, immunities and benefits given to the Trustee, including, without limitation, its right to be indemnified, are extended to, and shall be enforceable by, the Trustee in each of its capacities hereunder, and each agent, custodian, director, officer, employee and other Person employed to act hereunder;

(15) the Trustee may request that the Company deliver an Officer's Certificate setting forth the names of individuals and/or titles of Officers authorized at such time to take specified actions pursuant to this Indenture, which Officer's Certificate may be signed by any person authorized to sign an Officer's Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded;

(16) the permissive rights of the Trustee to take certain actions under or perform any discretionary act enumerated in this Indenture shall not be construed as a duty unless so specified herein, and the Trustee shall not be answerable for other than its negligence or willful misconduct in the performance of such action or act;

(17) the Trustee shall not be liable in its individual capacity with respect to any action taken, suffered or omitted to be taken by it in good faith in accordance with this Indenture or at the direction of the Holders of a majority in aggregate principal amount of the Outstanding Securities relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising or omitting to exercise any trust or power conferred upon the Trustee, under this Indenture;

(18) in no event shall the Trustee be liable for special, indirect or consequential loss or damage of any kind whatsoever (including but not limited to lost profits) even if the Trustee has been advised of the likelihood of such loss or damage and regardless of the form of action; and

(19) in no event shall the Trustee be responsible or liable for any failure or delay in the performance of its obligations hereunder arising out of or caused by, directly or indirectly, forces beyond its control, including, without limitation strikes, work stoppages, accidents, acts of war or terrorism, civil or military disturbances, nuclear or natural catastrophes or acts of God, and interruptions, loss or malfunctions of utilities, communications or computer (software and hardware) services; it being understood that the Trustee shall use reasonable efforts which are consistent with accepted practices in the banking industry to resume performance as soon as practicable under the circumstances.

Section 6.3 Notice of Defaults

Within 90 days after the occurrence of any default hereunder with respect to the Securities of any series of which a Responsible Officer has actual knowledge, the Trustee shall give the Holders of Securities of such series entitled to receive reports pursuant to Section 7.3, notice of such default hereunder actually known to a Responsible Officer, unless such default shall have been cured or waived; provided, however, that, except in the case of a default in the payment of the principal of (or premium, if any), or interest, if any, on, or Additional Amounts or any sinking fund or purchase fund installment with respect to, any Security of such series, the Trustee shall be protected in withholding such notice if and so long as the board of directors, the executive committee or a trust committee of directors and/or Responsible Officers in good faith determine that the withholding of such notice is in the best interest of the Holders of Securities of such series; and provided, further, that in the case of any default of the character specified in Section 5.1(4) with respect to Securities of such series, no such notice to Holders shall be given until at least 30 days after the occurrence thereof. For the purpose of this Section, the term “default” means any event that is, or after notice or lapse of time or both would become, an Event of Default with respect to Securities of such series.

Section 6.4 Not Responsible for Recitals or Issuance of Securities

The recitals contained herein and in the Securities, except the Trustee’s certificate of authentication, shall be taken as the statements of the Company, and neither the Trustee nor any Authenticating Agent assumes any responsibility for their correctness. The Trustee makes no representations as to the validity, sufficiency or priority of this Indenture or of the Securities. Neither the Trustee nor any Authenticating Agent shall be accountable for the use or application by the Company of the Securities or the proceeds thereof. Except with respect to the authentication of Securities pursuant to Section 3.3, the Trustee shall not be responsible for the legality or the validity of this Indenture or any Securities issued or to be issued hereunder.

Section 6.5 May Hold Securities

The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other Person that may be an agent of the Trustee or the Company, in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to Sections 310(b) and 311 of the Trust Indenture Act, may otherwise deal with the Company with the same rights it would have if it were not the Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other Person.

Section 6.6 Money Held in Trust

Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed in writing with the Company.

Section 6.7 Compensation and Reimbursement

The Company agrees:

(1) to pay to the Trustee from time to time such compensation as shall be agreed upon from time to time in writing between the Company and the Trustee for all services rendered by the Trustee hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(2) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture arising out of or in connection with the acceptance or administration of the trust or trusts hereunder (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be caused by the Trustee’s own negligence or willful misconduct; and

(3) to fully indemnify each of the Trustee and any predecessor Trustee and its agents, officers, directors and employees for, and to hold them harmless against, any loss, liability, damage, claim or expense (including reasonable legal fees and expenses), including taxes (other than taxes based on the income of the Trustee), incurred without negligence or willful misconduct on their part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the reasonable costs and expenses of defending themselves against any claim or liability (whether asserted by the Company, a Holder of Securities, or any other Person) in connection with the exercise or performance of any of their powers or duties hereunder.

As security for the performance of the payment obligations of the Company under this Section 6.6, the Trustee shall have a lien prior to the Securities of any series upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of, and premium or interest on, or any Additional Amounts with respect to, particular Securities. Such lien shall survive the resignation or removal of the Trustee and the satisfaction and discharge of this Indenture. Without prejudice to any other rights available to the Trustee under applicable law, when the Trustee incurs expenses or renders services after a default or Event of Default specified in Section 5.1(5) and 5.1(6) hereof occurs, the expenses and the compensation for the services (including the fees and expense of its agents and counsel) are intended to constitute expense of administration under U.S. Code, Title 11 or any other similar foreign, federal or state law for the relief of debtors.

Without prejudice to any other rights available to the Trustee under applicable law, to the extent permitted by law any compensation or expense incurred by the Trustee after a default specified in or pursuant to Section 5.1 is intended to constitute an expense of administration under any then applicable bankruptcy or insolvency law. “Trustee” for purposes of this Section 6.7 shall include any predecessor Trustee but the negligence or willful misconduct of any Trustee shall not affect the rights of any other Trustee under this Section 6.7.

Notwithstanding any other provision of this Indenture to the contrary, in no event shall the Trustee be liable for special, indirect or consequential damages of any kind whatsoever (including but not limited to lost profits) even if the Trustee had been advised of the likelihood of such loss or damage and regardless of the form of action.

The provisions of this Section 6.7 shall survive the satisfaction and discharge of this Indenture or the earlier resignation or removal of the Trustee and shall apply with equal force and effect to the Trustee in its capacity as Authenticating Agent, Paying Agent or Security Registrar.

Section 6.8 Corporate Trustee Required; Eligibility; Conflicting Interests

There shall at all times be a Trustee hereunder that is a Corporation or a national banking association, organized and doing business under the laws of the United States of America, any state thereof or the District of Columbia, eligible under Section 310(a)(1) of the Trust Indenture Act to act as trustee under an indenture qualified under the Trust Indenture Act and that has a combined capital and surplus (computed in accordance with Section 310(a)(2) of the Trust Indenture Act) of at least \$50,000,000 subject to supervision or examination by federal or state authority. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section 6.8, it shall resign immediately in the manner and with the effect hereinafter specified in this Article 6.

If the Trustee has or shall acquire a conflicting interest within the meaning of the Trust Indenture Act, the Trustee shall either eliminate such interest or resign, to the extent and in the manner provided by, and subject to the provisions of, the Trust Indenture Act and this Indenture. To the extent permitted by such Act, the Trustee shall not be deemed to have a conflicting interest by virtue of being a trustee under this Indenture with respect to Securities of more than one series.

Section 6.9 Resignation and Removal; Appointment of Successor

(1) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article 6 shall become effective until the acceptance of appointment by the successor Trustee pursuant to Section 6.10.

(2) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 6.10 shall not have been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee with respect to such series.

(3) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series, delivered to the Trustee and the Company. If the instrument of acceptance by a successor Trustee required by Section 6.10 shall not have been delivered to the Trustee within 30 days after the giving of such notice of removal, the Trustee being removed may petition, at the expense of the Company, any court of competent jurisdiction for the appointment of a successor Trustee with respect to such series. The Trustee for one or more series of Securities may be removed by the Company, so long as no default or Event of Default has occurred and is continuing with respect to such series.

(4) If at any time:

(a) the Trustee shall fail to comply with the obligations imposed upon it under Section 310(b) of the Trust Indenture Act with respect to Securities of any series after written request therefor by the Company or any Holder of a Security of such series who has been a bona fide Holder of a Security of such series for at least six months,

(b) the Trustee shall cease to be eligible under Section 6.8 and shall fail to resign after written request therefor by the Company or any such Holder, or

(c) the Trustee shall become incapable of acting or shall be adjudged bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case,

- (i) the Company, by or pursuant to a Company Order, may remove the Trustee with respect to all Securities or the Securities of such series, or
- (ii) subject to Section 5.15, any Holder of a Security who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities of such series and the appointment of a successor Trustee or Trustees.

(5) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by or pursuant to a Company Order, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of such series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of Section 6.10. If, within one year after such resignation, removal or incapacity, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 6.10, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders of Securities and accepted appointment in the manner required by Section 6.10, any Holder of a Security who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

(6) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series by mailing written notice of such event by first-class mail, postage prepaid, to the Holders of Registered Securities, if any, of such series as their names and addresses appear in the Security Register. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

(7) In no event shall any retiring Trustee be liable for the acts or omissions of any successor Trustee hereunder.

Section 6.10 Acceptance of Appointment by Successor

(1) Upon the appointment hereunder of any successor Trustee with respect to all Securities, such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties hereunder of the retiring Trustee; but, on the request of the Company or such successor Trustee, such retiring Trustee, upon payment of its charges, shall

execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and, subject to Section 10.3, shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder, subject nevertheless to its lien, if any, provided for in Section 6.7.

(2) Upon the appointment hereunder of any successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and such successor Trustee shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (a) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, such successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (b) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring and shall continue to be vested in the retiring Trustee and (c) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust, that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee and that no Trustee shall be responsible for any notice given to, or received by, or any act or failure to act on the part of any other Trustee hereunder, and, upon the execution and delivery of such supplemental indenture, the resignation or removal of the retiring Trustee shall become effective to the extent provided therein, such retiring Trustee shall have no further responsibility for the exercise of rights and powers or for the performance of the duties and obligations vested in the Trustee under this Indenture with respect to the Securities of that or those series to which the appointment of such successor Trustee relates other than as hereinafter expressly set forth, and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or such successor Trustee, such retiring Trustee, upon payment of its charges with respect to the Securities of that or those series to which the appointment of such successor Trustee relates and subject to Section 10.3 shall duly assign, transfer and deliver to such successor Trustee, to the extent contemplated by such supplemental indenture, the property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, subject to its lien, if any, provided for in Section 6.7.

(3) Upon request of any Person appointed hereunder as a successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts.

(4) No Person shall accept its appointment hereunder as a successor Trustee unless at the time of such acceptance such successor Person shall be qualified and eligible under this Article 6.

Section 6.11 Merger; Conversion; Consolidation; or Succession to Business

Any Corporation or national banking association into which the Trustee may be merged or converted or with which it may be consolidated, or any Corporation or national banking association resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any Corporation or national banking association succeeding to all or substantially all of the corporate trust business of the Trustee by sale or otherwise, shall be the successor of the Trustee hereunder, provided such Corporation or national banking association shall otherwise be qualified and eligible under this Article 6, in each case without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated but not delivered by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

Section 6.12 Appointment of Authenticating Agent

The Trustee may appoint one or more Authenticating Agents acceptable to the Company with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of that or those series issued upon original issue, exchange, registration of transfer, partial redemption or partial repayment or pursuant to Section 3.6, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent.

Each Authenticating Agent must be acceptable to the Company and, except as provided in or pursuant to this Indenture, shall at all times be a Corporation or national banking association that would be permitted by the Trust Indenture Act to act as trustee under an indenture qualified under the Trust Indenture Act, is authorized under applicable law and by its charter to act as an Authenticating Agent and has a combined capital and surplus (computed in accordance with Section 310(a)(2) of the Trust Indenture Act) of at least \$50,000,000. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 6.12, it shall resign immediately in the manner and with the effect specified in this Section 6.12.

Any Corporation or national banking association into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any Corporation or national banking association resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any Corporation or national banking association succeeding to all or substantially all of the corporate agency or corporate trust business of an Authenticating Agent, shall be the successor of such Authenticating Agent hereunder, provided such Corporation or national banking association shall be otherwise eligible under this Section 6.12, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section 6.12, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall mail written notice of such appointment by first-class mail, postage prepaid, to all Holders of Registered Securities, if any, of the series with respect to which such Authenticating Agent shall serve, as their names and addresses appear in the Security Register. Any successor Authenticating Agent, upon acceptance of its appointment hereunder, shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section 6.12.

The Company agrees to pay each Authenticating Agent from time to time reasonable compensation for its services under this Section 6.12 to the extent agreed in writing.

The provisions of Section 3.3, Section 6.1, Section 6.4 and Section 6.5 shall be applicable to each Authenticating Agent.

If an Authenticating Agent is appointed with respect to one or more series of Securities pursuant to this Section 6.12, the Securities of such series may have endorsed thereon, in addition to or in lieu of the Trustee’s certificate of authentication, an alternate certificate of authentication in substantially the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

_____, as Trustee

By: _____
As Authenticating Agent

By: _____
Authorized Officer

Dated:

If all of the Securities of any series may not be originally issued at one time, and if the Trustee does not have an office capable of authenticating Securities upon original issuance located in a Place of Payment where the Company wishes to have Securities of such series authenticated upon original issuance, the Trustee, if so requested by Company Request (which writing need not be accompanied by or contained in an Officer’s Certificate), shall appoint in accordance with this Section 6.12 (and subject to such procedures as shall be acceptable to the Trustee) an Authenticating Agent having an office in a Place of Payment designated by the Company with respect to such series of Securities.

ARTICLE 7

HOLDERS LISTS AND REPORTS BY TRUSTEE AND COMPANY

Section 7.1 Company to Furnish Trustee Names and Addresses of Holders

In accordance with Section 312(a) of the Trust Indenture Act, the Company shall furnish or cause to be furnished to the Trustee:

- (1) semi-annually with respect to Securities of each series not later than 15 days after each Regular Record Date in respect of Securities of a series, a list, in each case in such form as the Trustee may reasonably require, of the names and addresses of Holders of such Securities as of the applicable date, and
- (2) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished,

provided, however, that so long as the Trustee is the Security Registrar no such list shall be required to be furnished.

Section 7.2 Preservation of Information; Communications to Holders

The Trustee shall comply with the obligations imposed upon it pursuant to Section 312 of the Trust Indenture Act.

Every Holder of Securities, by receiving and holding the same, agrees with the Company and the Trustee that neither the Company, the Trustee, any Paying Agent or any Security Registrar shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders of Securities in accordance with Section 312 of the Trust Indenture Act, regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 312(b) of the Trust Indenture Act.

Section 7.3 Reports by Trustee

(1) Within 60 days after May 15 of each year commencing with the first May 15 following the first issuance of Securities pursuant to Section 3.1, if required by Section 313(a) of the Trust Indenture Act, the Trustee shall transmit, pursuant to Section 313(c) of the Trust Indenture Act, a brief report dated as of such May 15 with respect to any of the events specified in said Section 313(a) that may have occurred since the later of the immediately preceding May 15 and the date of this Indenture.

(2) The Trustee shall transmit any reports required by Section 313(a) of the Trust Indenture Act at the times specified therein.

(3) A copy of each report, if any, described in Section 7.3(1) and (2) shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange, if any, upon which the Securities are listed, with the Commission and with the Company. The Company will promptly notify the Trustee when the Securities are listed on any stock exchange and of any delisting thereof.

Section 7.4 Reports by Company

The Company, pursuant to Section 314(a) of the Trust Indenture Act, shall:

(1) file with the Trustee, within 30 days after the Company has filed the same with the Commission, unless such reports are available on the Commission's EDGAR filing system (or any successor thereto), copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the Commission may from time to time by rules and regulations prescribe) which the Company may be required to file with the Commission pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of Section 13 or Section 15(d) of the Exchange Act, then it shall file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations;

(2) file with the Trustee and the Commission, in accordance with rules and regulations prescribed from time to time by the Commission, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations; and

(3) transmit within 30 days after the filing thereof with the Trustee, in the manner and to the extent provided in Section 313(c) of the Trust Indenture Act, such summaries of any information, documents and reports required to be filed by the Company pursuant to paragraphs (1) and (2) of this Section 7.4 as may be required by rules and regulations prescribed from time to time by the Commission.

Delivery of such reports, information and documents to the Trustee is for informational purposes only and the Trustee's receipt of such shall not constitute constructive notice of any information contained therein or determinable from information contained therein, including the Company's compliance with any of its covenants hereunder (as to which the Trustee is entitled to rely exclusively on Officer's Certificates).

ARTICLE 8

CONSOLIDATION, MERGER AND SALES

Section 8.1 Company May Consolidate, etc., Only on Certain Terms

The Company shall not directly or indirectly consolidate with or merge with or into, or sell, assign, transfer, lease, convey or otherwise dispose of all or substantially all of its assets and properties and the assets and properties of its Subsidiaries (taken as a whole) to another Person in one or more related transactions unless:

(1) either: (A) the Company is the survivor; or (B) the Person formed by or surviving any such consolidation or merger (if other than the Company) or to which such sale, assignment, transfer, lease, conveyance or other disposition has been made is a Person organized or existing under the laws of the United States, any state of the United States or the District of Columbia;

(2) the Person formed by or surviving any such consolidation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, lease, conveyance or other disposition has been made shall expressly assume, by an indenture (or indentures, if at such time there is more than one Trustee) supplemental hereto, in form reasonably satisfactory to the Trustee, executed by the successor Person and delivered to the Trustee, the due and punctual payment of the principal of, any premium and interest on and any Additional Amounts with respect to, all the Securities and the performance of every obligation in this Indenture and the Outstanding Securities on the part of the Company to be performed or observed and shall provide for conversion or exchange rights in accordance with the provisions of the Securities of any series that are convertible or exchangeable into Common Stock or other securities, cash or other property;

(3) either the Company or the successor Person shall have delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, merger, sale, assignment, transfer, lease, conveyance or other disposition and, if a supplemental indenture is required in connection with such transaction, such supplemental indenture comply with this Article 8 and that all conditions precedent herein provided for relating to such transaction have been complied with; and

(4) immediately after giving effect to such transaction, no Event of Default or event which, after notice or lapse of time, or both, would become an Event of Default, shall have occurred and be continuing.

Section 8.2 Successor Person Substituted for Company

Upon any consolidation by the Company with or merger of the Company into any other Person or Persons where the Company is not the survivor or any sale, assignment, transfer, lease, conveyance or other disposition of all or substantially all of the properties and assets of the Company and the properties and assets of its Subsidiaries (taken as a whole) to any Person or Persons in accordance with Section 8.1, the successor Person formed by such consolidation or into which the Company is merged or to which such sale, assignment, transfer, lease, conveyance or other disposition is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein; and thereafter, except in the case of a lease, the predecessor Person shall be released from all obligations and covenants under this Indenture and the Securities.

ARTICLE 9

SUPPLEMENTAL INDENTURES

Section 9.1 Supplemental Indentures Without Consent of Holders

Without the consent of any Holders of Securities, the Company (when authorized by or pursuant to a Board Resolution) and the Trustee, at any time and from time to time, may enter into one or more indentures supplemental hereto, in form satisfactory to the Trustee, for any of the following purposes:

- (1) to evidence the succession of another Person to the Company, and the assumption by any such successor of the covenants of the Company contained herein and in the Securities;
- (2) to add to the covenants of the Company for the benefit of the Holders of all or any series of Securities (as shall be specified in such supplemental indenture or indentures) or to surrender any right or power herein conferred upon the Company; provided, that in respect of any such additional covenant, such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such a default or may limit the remedies available to the Trustee upon an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default;
- (3) to establish the form or terms of Securities of any series as permitted by Section 2.1 and Section 3.1;
- (4) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 6.10;
- (5) to cure any ambiguity, to correct or supplement any provision herein which may be defective or inconsistent with any other provision herein, or to make any other provisions with respect to matters or questions arising under this Indenture; provided that no action pursuant to this clause (5) shall adversely affect the interests of the Holders of Securities of any series then Outstanding in any material respect;
- (6) to add to, delete from or revise the conditions, limitations and restrictions on the authorized amount, terms or purposes of issue, authentication and delivery of Securities, as herein set forth;
- (7) to add any additional Events of Default with respect to all or any series of Securities (as shall be specified in such supplemental indenture);
- (8) to supplement any of the provisions of this Indenture to such extent as shall be necessary for the defeasance and discharge of any series of Securities pursuant to Article 4, provided that any such action shall not adversely affect the interests of any Holder of an Outstanding Security of such series or any other Security in any material respect;
- (9) to make provisions with respect to conversion or exchange rights of Holders of Securities of any series;
- (10) to add guarantees in respect of the Securities of one or more series and to provide for the terms and conditions of release thereof;
- (11) to convey, transfer, assign, mortgage or pledge to the Trustee as security for the Securities of one or more series any property or assets and to provide for the terms and conditions of release thereof;
- (12) to change or eliminate any of the provisions of this Indenture, provided that any such change or elimination shall become effective only when there is no Outstanding Security of any series created prior to the execution of such supplemental indenture that is entitled to the benefit of such provision;
- (13) to provide for Definitive Securities in addition to or in place of Global Securities;
- (14) to qualify the Indenture under the Trust Indenture Act;
- (15) with respect to the Securities of a series, to conform the text of the Indenture or the Securities of such series to any provision of the description thereof in the Company's offering memorandum or prospectus relating to the initial offering of such Securities, to the extent that such provision, in the good faith judgment of the Company, was intended to be a verbatim recitation of a provision of the Indenture or such Securities; or
- (16) to make any other change that does not adversely affect the rights of Holders of Outstanding Securities in any material respect.

The Trustee is hereby required to join with the Company and any guarantors in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations which may be therein contained and to accept the conveyance, transfer, assignment, mortgage or pledge of any property thereunder, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 9.2 Supplemental Indentures With Consent of Holders

With the consent of the Holders of not less than a majority (or such greater amount as is provided for a particular series of Securities) in principal amount of the Outstanding Securities of each series affected by such supplemental indenture (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Securities of such series), by Act of said Holders delivered to the Company and the Trustee, the Company (when authorized by or pursuant to a Board Resolution) and the Trustee may enter into an indenture or indentures supplemental hereto for the purpose of adding any provisions to or changing in any manner or eliminating any of the provisions of this Indenture or of modifying in any manner the rights of the Holders of Securities of such series under this Indenture or of the Securities of such series; provided, however, that no such supplemental indenture, without the consent of the Holder of each Outstanding Security affected thereby, shall:

- (1) change the Stated Maturity of the principal of, or any premium or installment of interest on or any Additional Amounts with respect to, any Security, or reduce the principal amount thereof or the rate (or modify the calculation of such rate in a manner that reduces such rate) of interest thereon or any Additional Amounts with respect thereto, or any premium payable upon the redemption thereof or otherwise, or change the obligation of the Company to pay Additional Amounts pursuant to Section 10.4, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2 or the amount thereof provable in bankruptcy pursuant to Section 5.4, change the redemption provisions or adversely affect the right of repayment at the option of any Holder as contemplated by Article 13, or change the Place of Payment for any Security or the Currency in which the principal of, any premium or interest on, or any Additional Amounts with respect to any Security is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date or, in the case of repayment at the option of the Holder, on or after the date for repayment);
- (2) reduce the percentage in principal amount of the Outstanding Securities of any series the consent of the Holders of which are required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or reduce the requirements of Section 15.4 for quorum or voting;
- (3) modify any of the provisions of this Section 9.2 or Section 5.13 or Section 10.5, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby; or
- (4) make any change that adversely affects the right to convert or exchange any Security into or for Common Stock or other securities, cash or other property in accordance with the terms of such Security.

A supplemental indenture that changes or eliminates any covenant or other provision of this Indenture that shall have been included expressly and solely for the benefit of one or more particular series of Securities, or that modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders of Securities under this Section 9.2 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

Upon the request of the Company, accompanied by a copy of a Board Resolution authorizing the execution of any such supplemental indenture, and upon the filing with the Trustee of evidence of the consent of Holders of Securities as aforesaid, the Trustee shall join with the Company and any guarantors in the execution of such supplemental indenture unless such supplemental indenture affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but shall not be obligated to, enter into such supplemental indenture.

Section 9.3 Execution of Supplemental Indentures

As a condition to executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article 9 or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and shall be fully protected in relying upon, an Officer's Certificate and Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

Section 9.4 Revocation of Consents

Notwithstanding clause (5) of Section 1.4, any Holder of a Security or future Holder of the same Security may revoke a consent as to its Security or portion of a Security. Any revocation of a consent by the Holder of a Security or any such future Holder shall be effective only if the Trustee receives the notice of revocation before the date on which the Trustee receives an Officer's Certificate from the Company certifying that the requisite number of consents have been received. If, however, a record date is fixed pursuant to Section 1.4, then notwithstanding the second preceding sentence, those Persons who were Holders at such record date (or their duly designated proxies), and only those Persons, shall be entitled to revoke any consent previously given, whether or not such Persons continue to be Holders after such record date.

Section 9.5 Effect of Supplemental Indentures

A supplemental indenture or waiver becomes effective upon the (a) receipt by the Company or the Trustee of the requisite number of consents (if required), (b) satisfaction of any conditions to effectiveness as set forth in this Indenture or any such supplemental indenture or waiver and (c) with respect to a supplemental indenture, execution of such supplemental indenture by the Company and the Trustee. After a supplemental indenture or waiver becomes effective, it shall bind every Holder, unless it makes a change described in any of clauses (1) through (4) of Section 9.2, in which case, the supplemental indenture or waiver shall bind a Holder of a Security who is affected thereby only if it has consented to such supplemental indenture or waiver and every subsequent Holder of a Security or portion of a Security that evidences the same debt as the consenting Holder's Security. Upon the effectiveness of any supplemental indenture under this Article, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and, except as provided in the preceding sentence, every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

Section 9.6 Reference in Securities to Supplemental Indentures

Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article 9 may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

Section 9.7 Conformity with Trust Indenture Act

Every supplemental indenture executed pursuant to this Article 9 shall conform to the requirements of the Trust Indenture Act as then in effect.

Section 9.8 Notice of Supplemental Indenture

Promptly after the execution by the Company and the Trustee of any supplemental indenture pursuant to Section 9.2, the Company shall transmit to the Holders of Outstanding Securities of any series affected thereby a notice setting forth the substance of such supplemental indenture; provided, that any failure to provide, or any defect in any such notice, shall not impair the validity of any such supplemental indenture.

ARTICLE 10

COVENANTS

Section 10.1 Payment of Principal, any Premium, Interest and Additional Amounts

The Company covenants and agrees for the benefit of the Holders of the Securities of each series that it will duly and punctually pay the principal of, any premium and interest on and any Additional Amounts with respect to, the Securities of such series in accordance with the terms thereof and this Indenture.

Section 10.2 Maintenance of Office or Agency

The Company shall maintain in each Place of Payment for any series of Securities an Office or Agency where Securities of such series may be presented or surrendered for payment, where Securities of such series may be surrendered for registration of transfer or exchange, where Securities of such series that are convertible or exchangeable may be surrendered for conversion or exchange, and where notices and demands to or upon the Company in respect of the Securities of such series relating thereto and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such Office or Agency. If at any time the Company shall fail to maintain any such required Office or Agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee, and the Company hereby appoints the Trustee as its agent to receive all such presentations, surrenders, notices and demands.

The Company may also from time to time designate one or more other Offices or Agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an Office or Agency in each Place of Payment for Securities of any series for such purposes. The Company shall give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other Office or Agency.

Unless otherwise provided in or pursuant to this Indenture, the Company hereby designates as the Place of Payment for each series of Securities the Borough of Manhattan, The City of New York, and initially appoints the Corporate Trust Office of , located at , as the Office or Agency of the Company in the Borough of Manhattan, The City of New York for such purpose. The Company may subsequently appoint a different Office or Agency in the Borough of Manhattan, The City of New York for the Securities of any series.

Section 10.3 Money for Securities Payments to Be Held in Trust

If the Company shall at any time act as its own Paying Agent with respect to any series of Securities, it shall, on or before each due date of the principal of, any premium or interest on or Additional Amounts with respect to any of the Securities of such series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum in the currency or currencies, currency unit or units or composite currency or currencies in which the Securities of such series are payable (except as otherwise specified pursuant to Section 3.1 for the Securities of such series) sufficient to pay the principal or any premium, interest or Additional Amounts so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided, and shall promptly notify the Trustee of its failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities, it shall, on or prior to each due date of the principal of, any premium or interest on or any Additional Amounts with respect to any Securities of such series, deposit with any Paying Agent a sum (in the currency or currencies, currency unit or units or composite currency or currencies described in the preceding paragraph) sufficient to pay the principal or any premium, interest or Additional Amounts so becoming due, such sum to be held in trust for the benefit of the Persons entitled thereto, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its failure so to act.

The Company shall cause each Paying Agent for any series of Securities (other than the Trustee) to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section 10.3, that such Paying Agent shall:

- (1) hold all sums held by it for the payment of the principal of, any premium or interest on or any Additional Amounts with respect to Securities of such series in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as provided in or pursuant to this Indenture;
- (2) give the Trustee notice of any default by the Company (or any other obligor upon the Securities of such series) in the making of any payment of principal, any premium or interest on or any Additional Amounts with respect to the Securities of such series; and

(3) at any time during the continuance of any such default, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same terms as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such sums.

Except as otherwise provided herein or pursuant hereto, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of, any premium or interest on or any Additional Amounts with respect to any Security of any series and remaining unclaimed for two years after such principal or any such premium or interest or any such Additional Amounts shall have become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company either cause to be published once, in an Authorized Newspaper in each Place of Payment for such series, or may cause to be mailed once to Holders of Registered Securities of such series, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication or mailing nor later than two years after such principal and any premium or interest or Additional Amounts shall have become due and payable, any unclaimed balance of such money then remaining will be repaid to the Company.

Section 10.4 Additional Amounts

If any Securities of a series provide for the payment of Additional Amounts, the Company agrees to pay to the Holder of any such Security Additional Amounts as provided in or pursuant to this Indenture or such Securities. Whenever in this Indenture there is mentioned, in any context, the payment of the principal of or any premium or interest on, or in respect of, any Security of any series, such mention shall be deemed to include mention of the payment of Additional Amounts provided by the terms of such series established hereby or pursuant hereto to the extent that, in such context, Additional Amounts are, were or would be payable in respect thereof pursuant to such terms, and express mention of the payment of Additional Amounts (if applicable) in any provision hereof shall not be construed as excluding Additional Amounts in those provisions hereof where such express mention is not made.

Except as otherwise provided in or pursuant to this Indenture or the Securities of the applicable series, if the Securities of a series provide for the payment of Additional Amounts, at least 10 days prior to the first Interest Payment Date with respect to such series of Securities (or if the Securities of such series shall not bear interest prior to Maturity, the first day on which a payment of principal is made), and at least 10 days prior to each date of payment of principal or interest if there has been any change with respect to the matters set forth in the below-mentioned Officer's Certificate, the Company shall furnish to the Trustee and the principal Paying Agent or Paying Agents, if other than the Trustee, an Officer's Certificate instructing the Trustee and such Paying Agent or Paying Agents whether such payment of principal of and premium, if any, or interest on the Securities of such series shall be made to Holders of Securities of such series who are United States Aliens (as demonstrated by delivery of appropriate tax forms) without withholding for or on account of any tax, assessment or other governmental charge described in the Securities of such series. If any such withholding shall be required, then such Officer's Certificate shall specify by country the amount, if any, required to be withheld on such payments to such Holders of Securities, and the Company agrees to pay to the Trustee or such Paying Agent the Additional Amounts required by the terms of such Securities. The Company covenants to indemnify the Trustee and any Paying Agent for, and to hold them harmless against, any loss, liability or expense reasonably incurred without negligence or bad faith on their part arising out of or in connection with actions taken or omitted by any of them in reliance on any Officer's Certificate furnished pursuant to this Section 10.4.

Section 10.5 Waiver of Certain Covenants

The Company may omit in any particular instance to comply with any term, provision or condition specified pursuant to Section 3.1 with respect to the Securities of any series if the Company shall have obtained or filed with the Trustee, prior to the time of such failure or omission, evidence (as described in Section 1.4) of the consent of the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series, by Act of such Holders, either waiving such compliance in such instance or generally waiving compliance with such term, provision or condition, but no such waiver shall extend to or affect such term, provision or condition except to the extent so expressly waived, and, until such waiver shall become effective in accordance with Section 9.5, the obligations of the Company and the duties of the Trustee in respect of any such term, provision or condition shall remain in full force and effect.

Section 10.6 Company Statement as to Compliance

(1) If any Securities are Outstanding under this Indenture, the Company shall deliver to the Trustee, within 120 days after the end of each fiscal year, a written statement (which need not be contained in or accompanied by an Officer's Certificate) signed by the principal executive officer, the principal financial officer or the principal accounting officer, stating that:

(a) in the course of the performance of his or her duties as an officer of the Company he or she would normally have knowledge of any default by the Company in the performance of the covenants contained in this Indenture, and

(b) to his or her knowledge, the Company has complied with all the conditions and covenants imposed on it under this Indenture throughout such year, or, if there has been a noncompliance in the fulfillment of any such condition or covenant, specifying each such noncompliance known to him or her and the nature and status thereof.

(2) The Trustee shall have no duty to monitor the Company's compliance with the covenants contained in this Indenture other than to receive written notices described in Section 10.6(1).

ARTICLE 11

REDEMPTION OF SECURITIES

Section 11.1 Applicability of Article

Redemption of Securities of any series at the option of the Company as permitted or required by the terms of such Securities shall be made in accordance with the terms of such Securities and (except as otherwise provided herein or pursuant hereto) this Article 11.

Section 11.2 Election to Redeem; Notice to Trustee

The election of the Company to optionally redeem any Securities shall be evidenced by or pursuant to a Board Resolution. In case of any redemption at the election of the Company of the Securities of any series, the Company shall, at least 60 days prior to the Redemption Date fixed by the Company (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed. In the case of any redemption of Securities (a) prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture, or (b) pursuant to an election of the Company that is subject to a condition specified in the terms of such Securities or elsewhere in this Indenture, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with such restriction or condition.

Section 11.3 Selection by Trustee of Securities to be Redeemed

If less than all of the Securities of any series with the same issue date, interest rate or formula, Stated Maturity and other terms are to be redeemed, the particular Securities to be redeemed shall be selected not more than 60 days prior to the Redemption Date by the Trustee from the Outstanding Securities of such series not previously called for redemption on a pro rata basis or by lot (whichever is consistent with the Trustee's customary practice); provided, however, that no such partial redemption shall reduce the portion of the principal amount of a Registered Security of such series not redeemed to less than the minimum denomination for a Security of such series established herein or pursuant hereto.

The Trustee shall promptly notify the Company and the Security Registrar (if other than itself) in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal of such Securities that has been or is to be redeemed.

Unless otherwise specified in or pursuant to this Indenture or the Securities of any series, if any Security selected for partial

redemption is converted into or exchanged for Common Stock or other securities, cash or other property in part before termination of the conversion or exchange right with respect to the portion of the Security so selected, the converted portion of such Security shall be deemed (so far as may be) to be the portion selected for redemption. Securities that have been converted or exchanged during a selection of Securities to be redeemed shall be treated by the Trustee as Outstanding for the purpose of such selection.

Section 11.4 Notice of Redemption

Notice of redemption shall be given in the manner provided in Section 1.6, not less than 30 nor more than 60 days prior to the Redemption Date, unless a shorter period is specified in the Securities to be redeemed, to the Holders of Securities to be redeemed. Failure to give notice by mailing in the manner herein provided to the Holder of any Registered Securities designated for redemption as a whole or in part, or any defect in the notice to any such Holder, shall not affect the validity of the proceedings for the redemption of any other Securities or portion thereof.

Any notice that is mailed to the Holder of any Registered Securities in the manner herein provided shall be conclusively presumed to have been duly given, whether or not such Holder receives the notice.

All notices of redemption shall state:

- (1) the Redemption Date;
- (2) the Redemption Price or if not then ascertainable, the manner of calculation thereof;
- (3) if less than all Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amount) of the particular Security or Securities to be redeemed;
- (4) in case any Security is to be redeemed in part only, the notice which relates to such Security shall state that on and after the Redemption Date, upon surrender of such Security, the Holder of such Security will receive, without charge, a new Security or Securities of authorized denominations for the principal amount thereof remaining unredeemed;
- (5) that, on the Redemption Date, the Redemption Price shall become due and payable upon each such Security or portion thereof to be redeemed, and, if applicable, that interest thereon shall cease to accrue on and after said date, subject to such conditions as may be specified pursuant to Section 3.1 with respect to such Security;
- (6) the place or places where such Securities are to be surrendered for payment of the Redemption Price and any accrued interest and Additional Amounts pertaining thereto;
- (7) that the redemption is for a sinking fund, if such is the case;
- (8) in the case of Securities of any series that are convertible or exchangeable into Common Stock or other securities, cash or other property, the conversion or exchange price or rate, the date or dates on which the right to convert or exchange the principal of the Securities of such series to be redeemed will commence or terminate and the place or places where such Securities may be surrendered for conversion or exchange; and
- (9) the CUSIP number (or any other numbers used by a Depository to identify such Securities).

A notice of redemption published as contemplated by Section 1.6 need not identify particular Registered Securities to be redeemed.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, upon Company Request, by the Trustee in the name and at the expense of the Company.

Section 11.5 Deposit of Redemption Price

At or prior to 10:00 a.m., New York City time, on any Redemption Date, the Company shall deposit, with respect to the Securities of any series called for redemption pursuant to Section 11.4, with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 10.3) an amount of money in the

applicable Currency sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date, unless otherwise specified pursuant to Section 3.1 or in the Securities of such series) any accrued interest on and Additional Amounts with respect to such accrued interest, all such Securities or portions thereof which are to be redeemed on that date.

Section 11.6 Securities Payable on Redemption Date

Notice of redemption having been given as aforesaid and all conditions specified pursuant to Section 3.1 having been satisfied, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such Security for redemption in accordance with said notice, such Security shall be paid by the Company at the Redemption Price, together with any accrued interest and Additional Amounts to the Redemption Date; provided, however, that, except as otherwise specified in or pursuant to this Indenture or the Registered Securities of such series, installments of interest on Registered Securities whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the Regular Record Dates therefor according to their terms and the provisions of Section 3.7.

Unless otherwise specified in or pursuant to this Indenture or the Securities of any series, if any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal and any premium, until paid, shall bear interest from the Redemption Date at the rate prescribed therefor in the Security.

Section 11.7 Securities Redeemed in Part

Any Registered Security to be redeemed only in part shall be surrendered at any Office or Agency for such Security (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing) and the Company shall execute and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Registered Security or Securities of the same series, containing identical terms and provisions, of any authorized denomination as requested by such Holder in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal amount of the Security so surrendered. If a Global Security is so surrendered, the Company shall execute, and the Trustee shall authenticate and deliver to or on behalf of the U.S. Depositary or other Depositary for such Global Security as shall be specified in the Company Order with respect thereto to the Trustee, without service charge, a new Global Security in a denomination equal to and in exchange for the unredeemed portion of the principal of the Global Security so surrendered.

Section 11.8 Repurchases on the Open Market

The Company or any Affiliate of the Company may at any time or from time to time repurchase any of the Securities in the open market or otherwise. Such Securities may, at the option of the Company or the relevant Affiliate of the Company, be held, resold or surrendered to the Trustee for cancellation.

ARTICLE 12

SINKING FUNDS

Section 12.1 Applicability of Article

The provisions of this Article 12 shall be applicable to any sinking fund for the retirement of Securities of a series, except as otherwise permitted or required in or pursuant to this Indenture or any Security of such series issued pursuant to this Indenture.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a “mandatory sinking fund payment,” and any payment in excess of such minimum amount provided for by the terms of Securities of such series is herein referred to as an “optional sinking fund payment.” If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 12.2. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series and this Indenture.

Section 12.2 Satisfaction of Sinking Fund Payments with Securities

The Company may, in satisfaction of all or any part of any sinking fund payment with respect to the Securities of any series to be made pursuant to the terms of such Securities (1) deliver Outstanding Securities of such series (other than any of such Securities previously called for redemption or any of such Securities in respect of which cash shall have been released to the Company) and (2) apply as a credit Securities of such series which have been redeemed either at the election of the Company pursuant to the terms of such series of Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly. If as a result of the delivery or credit of Securities of any series in lieu of cash payments pursuant to this Section 12.2, the principal amount of Securities of such series to be redeemed in order to satisfy the remaining sinking fund payment shall be less than \$100,000, the Trustee need not call Securities of such series for redemption, except upon Company Request, and such cash payment shall be held by the Trustee or a Paying Agent and applied to the next succeeding sinking fund payment, provided, however, that the Trustee or such Paying Agent shall at the request of the Company from time to time pay over and deliver to the Company any cash payment so being held by the Trustee or such Paying Agent upon delivery by the Company to the Trustee of Securities of that series purchased by the Company having an unpaid principal amount equal to the cash payment requested to be released to the Company.

Section 12.3 Redemption of Securities for Sinking Fund

Not less than 60 days prior to each sinking fund payment date for any series of Securities, the Company shall deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing mandatory sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting of Securities of that series pursuant to Section 12.2, and the basis for such credit and the optional amount, if any, to be added in cash to the next ensuing mandatory sinking fund payment, and will also deliver to the Trustee any Securities to be so credited and not theretofore delivered. If such Officer's Certificate shall specify an optional amount to be added in cash to the next ensuing mandatory sinking fund payment, the Company shall thereupon be obligated to pay the amount therein specified. Not less than 60 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 11.3 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 11.4. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 11.6 and Section 11.7.

ARTICLE 13

REPAYMENT AT THE OPTION OF HOLDERS

Section 13.1 Applicability of Article

Securities of any series which are repayable at the option of the Holders thereof before their Stated Maturity shall be repaid in accordance with the terms of the Securities of such series. The repayment of any principal amount of Securities pursuant to such option of the Holder to require repayment of Securities before their Stated Maturity, for purposes of Section 3.9, shall not operate as a payment, redemption or satisfaction of the indebtedness represented by such Securities unless and until the Company, at its option, shall deliver or surrender the same to the Trustee with a directive that such Securities be cancelled. Notwithstanding anything to the contrary contained in this Section 13.1, in connection with any repayment of Securities, the Company may arrange for the purchase of any Securities by an agreement with one or more investment bankers or other purchasers to purchase such Securities by paying to the Holders of such Securities on or before the close of business on the repayment date an amount not less than the repayment price payable by the Company on repayment of such Securities, and the obligation of the Company to pay the repayment price of such Securities shall be satisfied and discharged to the extent such payment is so paid by such purchasers.

ARTICLE 14

SECURITIES IN FOREIGN CURRENCIES

Section 14.1 Applicability of Article

Whenever this Indenture provides for (i) any action by, or the determination of any of the rights of, Holders of Securities of any series in which not all of such Securities are denominated in the same Currency, or (ii) any distribution to Holders of Securities, in the absence of any provision to the contrary pursuant to this Indenture or the Securities of any particular series, any amount in respect of any Security denominated in a Foreign Currency shall be treated for any such action or distribution as that amount of Dollars that could be obtained for such amount on such reasonable basis of exchange and as of the record date with respect to Registered Securities of such series (if any) for such action, determination of rights or distribution (or, if there shall be no applicable record date, such other date reasonably proximate to the date of such action, determination of rights or distribution) as the Company may specify in a written notice to the Trustee or, in the absence of such written notice, as the Trustee may determine.

ARTICLE 15

MEETINGS OF HOLDERS OF SECURITIES

Section 15.1 Purposes for Which Meetings May Be Called

A meeting of Holders of Securities of any series may be called at any time and from time to time pursuant to this Article 15 to make, give or take any request, demand, authorization, direction, notice, consent, waiver or other Act provided by this Indenture to be made, given or taken by Holders of Securities of such series.

Section 15.2 Call, Notice and Place of Meetings

(1) The Trustee may at any time call a meeting of Holders of Securities of any series for any purpose specified in Section 15.1, to be held at such time and at such place in the Borough of Manhattan, The City of New York as the Trustee may select and as shall be acceptable to the Company. Notice of every meeting of Holders of Securities of any series, setting forth the time and the place of such meeting and in general terms the action proposed to be taken at such meeting, shall be given, in the manner provided in Section 1.6, not less than 21 nor more than 180 days prior to the date fixed for the meeting.

(2) In case at any time the Company (by or pursuant to a Board Resolution) or the Holders of at least 25% in principal amount of the Outstanding Securities of any series shall have requested the Trustee to call a meeting of the Holders of Securities of such series for any purpose specified in Section 15.1, by written request setting forth in reasonable detail the action proposed to be taken at the meeting, and the Trustee shall not have mailed notice of such meeting within 21 days after receipt of such request or shall not thereafter proceed to cause the meeting to be held as provided herein, then the Company or the Holders of Securities of such series in the amount above specified, as the case may be, may determine the time and the place in the Borough of Manhattan, The City of New York for such meeting and may call such meeting for such purposes by giving notice thereof as provided in clause (1) of this Section 15.4.

Section 15.3 Persons Entitled to Vote at Meetings

To be entitled to vote at any meeting of Holders of Securities of any series, a Person shall be (1) a Holder of one or more Outstanding Securities of such series, or (2) a Person appointed by an instrument in writing as proxy for a Holder or Holders of one or more Outstanding Securities of such series by such Holder or Holders. The only Persons who shall be entitled to be present or to speak at any meeting of Holders of Securities of any series shall be the Persons entitled to vote at such meeting and their counsel, any representatives of the Trustee and its counsel and any representatives of the Company and its counsel.

Section 15.4 Quorum: Action

The Persons entitled to vote a majority in principal amount of the Outstanding Securities of a series shall constitute a quorum for a meeting of Holders of Securities of such series; provided, however, that if any action is to be taken at such meeting with respect to a consent or waiver which this Indenture expressly provides may be given by the Holders of a different percentage in principal amount of the Outstanding Securities of a series, the Persons entitled to vote such percentage in principal amount of the Outstanding Securities of such series shall constitute a quorum. In the absence of a quorum within 30 minutes after the time appointed for any such meeting, the meeting shall, if convened at the request of Holders of Securities of such series, be dissolved. In any other case the meeting may be adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such meeting. In the absence of a quorum at any such adjourned meeting, such

adjourned meeting may be further adjourned for a period of not less than 10 days as determined by the chairman of the meeting prior to the adjournment of such adjourned meeting. Notice of the reconvening of any adjourned meeting shall be given as provided in Section 15.2(1), except that such notice need be given only once not less than five days prior to the date on which the meeting is scheduled to be reconvened. Notice of the reconvening of an adjourned meeting shall state expressly the percentage, as provided above, of the principal amount of the Outstanding Securities of such series which shall constitute a quorum.

Except as limited by the proviso to Section 9.2, any resolution presented to a meeting or adjourned meeting duly reconvened at which a quorum is present as aforesaid may be adopted only by the affirmative vote of the Holders of a majority in principal amount of the Outstanding Securities of that series; provided, however, that, except as limited by the proviso to Section 9.2, any resolution with respect to any consent or waiver which this Indenture or any supplemental indenture expressly provides may be given by the Holders of at least 66-2/3% in principal amount of the Outstanding Securities of a series may be adopted at a meeting or an adjourned meeting duly convened and at which a quorum is present as aforesaid only by the affirmative vote of the Holders of 66-2/3% in principal amount of the Outstanding Securities of that series; and provided, further, that, except as limited by the proviso to Section 9.2, any resolution with respect to any request, demand, authorization, direction, notice, consent, waiver or other Act which this Indenture or any supplemental indenture expressly provides may be made, given or taken by the Holders of a different specified percentage, which is less than a majority, in principal amount of the Outstanding Securities of a series, may be adopted at a meeting or an adjourned meeting duly reconvened and at which a quorum is present as aforesaid by the affirmative vote of the Holders of such specified percentage in principal amount of the Outstanding Securities of such series.

Any resolution passed or decision taken at any meeting of Holders of Securities of any series duly held in accordance with this Section 15.4 shall be binding on all the Holders of Securities of such series, whether or not such Holders were present or represented at the meeting.

Section 15.5 Determination of Voting Rights; Conduct and Adjournment of Meetings

(1) Notwithstanding any other provisions of this Indenture, the Trustee may make such reasonable regulations as it may deem advisable for any meeting of Holders of Securities of such series in regard to proof of the holding of Securities of such series and of the appointment of proxies and in regard to the appointment and duties of inspectors of votes, the submission and examination of proxies, certificates and other evidence of the right to vote, and such other matters concerning the conduct of the meeting as it shall deem appropriate. Except as otherwise permitted or required by any such regulations, the holding of Securities shall be proved in the manner specified in Section 1.4 and the appointment of any proxy shall be proved in the manner specified in Section 1.4. Such regulations may provide that written instruments appointing proxies, regular on their face, may be presumed valid and genuine without the proof specified in Section 1.4 or other proof.

(2) The Trustee shall, by an instrument in writing, appoint a temporary chairman of the meeting, unless the meeting shall have been called by the Company or by Holders of Securities as provided in Section 15.2(2), in which case the Company or the Holders of Securities of the series calling the meeting, as the case may be, shall in like manner appoint a temporary chairman. A permanent chairman and a permanent secretary of the meeting shall be elected by vote of the Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting.

(3) At any meeting, each Holder of a Security of such series or proxy shall be entitled to one vote for each \$1,000 principal amount of Securities of such series held or represented by him; provided, however, that no vote shall be cast or counted at any meeting in respect of any Security challenged as not Outstanding and ruled by the chairman of the meeting to be not Outstanding. The chairman of the meeting shall have no right to vote, except as a Holder of a Security of such series or proxy.

(4) Any meeting of Holders of Securities of any series duly called pursuant to Section 15.2 at which a quorum is present may be adjourned from time to time by Persons entitled to vote a majority in principal amount of the Outstanding Securities of such series represented at the meeting; and the meeting may be held as so adjourned without further notice.

Section 15.6 Counting Votes and Recording Action of Meetings

The vote upon any resolution submitted to any meeting of Holders of Securities of any series shall be by written ballots on which shall be subscribed the signatures of the Holders of Securities of such series or of their representatives by proxy and the principal amounts and serial numbers of the Outstanding Securities of such series held or represented by them. The permanent chairman of the meeting shall appoint two inspectors of votes who shall count all votes cast at the meeting for or against any resolution and who shall make and file with the permanent secretary of the meeting their verified written reports in triplicate of

all votes cast at the meeting. A record, at least in triplicate, of the proceedings of each meeting of Holders of Securities of any series shall be prepared by the permanent secretary of the meeting and there shall be attached to said record the original reports of the inspectors of votes on any vote by ballot taken thereat and affidavits by one or more Persons having knowledge of the facts setting forth a copy of the notice of the meeting and showing that said notice was given as provided in Section 15.2 and, if applicable, Section 15.4. Each copy shall be signed and verified by the affidavits of the permanent chairman and secretary of the meeting and one such copy shall be delivered to the Company, and another to the Trustee to be preserved by the Trustee, the latter to have attached thereto the ballots voted at the meeting. Any record so signed and verified shall be conclusive evidence of the matters therein stated.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed as of the day and year first above written.

MARRONE BIO INNOVATIONS, INC.

By: _____
Name: _____
Title: _____

, as Trustee

By: _____
Name: _____
Title: _____

December 9, 2016

Marrone Bio Innovations, Inc.
1540 Drew Avenue
Davis, California 95618

Re: Shelf Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Marrone Bio Innovations, Inc., a Delaware corporation (the "Company"), in connection with the Registration Statement on Form S-3 (the "Registration Statement") to be filed by the Company under the Securities Act of 1933, as amended (the "Securities Act"). The Company has provided us with a base prospectus (the "Base Prospectus"), which forms part of the Registration Statement. The Base Prospectus provides that it will be supplemented in the future by one or more prospectus supplements (each, a "Prospectus Supplement"). The Registration Statement, including the Base Prospectus as supplemented from time to time by one or more Prospectus Supplements, will provide for the registration by the Company of:

- (i) shares of common stock, \$0.00001 par value per share, of the Company (the "Common Stock");
- (ii) shares of preferred stock, \$0.00001 par value per share, of the Company (the "Preferred Stock");
- (iii) debt securities, which may be senior or subordinated, and which may be issued in one or more series (the "Debt Securities"), under the form of indenture filed as Exhibit 4.8 to the Registration Statement, as such indenture may be supplemented from time to time (the "Indenture");
- (iv) warrants to purchase Common Stock, Preferred Stock or Debt Securities (the "Warrants"), which may be issued under warrant agreements, to be dated on or about the date of the first issuance of the applicable Warrants thereunder, by and between a warrant agent to be selected by the Company (the "Warrant Agent") and the Company, in the forms that will be filed as exhibits to the Registration Statement, as such agreements may be supplemented from time to time (each, a "Warrant Agreement");
- (v) rights to purchase Common Stock, Preferred Stock or Debt Securities or any combination of these securities (the "Rights"); and
- (vi) units comprised of shares of Common Stock, shares of Preferred Stock, Debt Securities, debt obligations of third parties, including U.S. treasury securities, warrants or any combination thereof (the "Units"), which may be issued under unit agreements, to be dated on or about the date of the first issuance of the applicable Units thereunder, by and between a unit agent to be selected by the Company (the "Unit Agent") and the Company, in the forms that will be filed as exhibits to the Registration Statement, as such agreements may be supplemented from time to time (each, a "Unit Agreement").

The Common Stock, the Preferred Stock, the Debt Securities, the Warrants, the Rights and the Units are collectively referred to herein as the "Shelf Securities." The Shelf Securities are being registered for offering and sale from time to time pursuant to Rule 415 under the Securities Act. The aggregate public offering price of the Shelf Securities being registered will not exceed \$50,000,000.

We have also acted as counsel to the Company in connection with the sale through H.C. Wainwright & Co., LLC as the sales agent ("Manager") from time to time by the Company of shares of Common Stock (the "Shares") having an aggregate offering price of up to \$15,000,000 pursuant to the Registration Statement, the Base Prospectus and the related Prospectus Supplement for the sale of the Shares included in the Registration Statement (the "ATM Agreement Supplement"), and that certain At The Market Offering Agreement dated December 9, 2016, between the Manager and the Company (the "ATM Agreement"). The Shares, together with the Shelf Securities, are collectively referred to herein as the "Securities."

In connection with this opinion, we have examined such corporate records, documents, instruments, certificates of public officials and of the Company and such questions of law as we have deemed necessary for the purpose of rendering the opinions set forth herein. We also have examined the Registration Statement, the Indenture and the ATM Agreement.

In such examination, we have assumed the genuineness of all signatures and the authenticity of all items submitted to us as

originals and the conformity with originals of all items submitted to us as copies. In making our examination of documents executed by parties other than the Company, we have assumed that each other party has the power and authority (or where such party is an individual, the capacity) to execute and deliver, and to perform and observe the provisions of, such documents, and the due authorization by each such party of all requisite action and the due execution and delivery of such documents by each such party, and that such documents constitute the legal, valid and binding obligations of each such party enforceable against such party in accordance with their terms.

The opinions hereinafter expressed are subject to the following qualifications and exceptions:

- (i) the effect of bankruptcy, insolvency, reorganization, arrangement, moratorium or other similar laws relating to or affecting the rights of creditors generally, including, without limitation, laws relating to fraudulent transfers or conveyances, preferences and equitable subordination;
- (ii) limitations imposed by general principles of equity upon the availability of equitable remedies or the enforcement of provisions of any Debt Securities, Common Stock, Preferred Stock, Warrants, Rights or Units, and the effect of judicial decisions which have held that certain provisions are unenforceable where their enforcement would violate the implied covenant of good faith and fair dealing, or would be commercially unreasonable, or where their breach is not material; and
- (iii) our opinion is based upon current statutes, rules, regulations, cases and official interpretive opinions, and it covers certain items that are not directly or definitively addressed by such authorities.

With respect to our opinion as to the Common Stock, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Common Stock are authorized and available for issuance and that the consideration for the issuance and sale of the Common Stock (or Preferred Stock convertible into Common Stock, Debt Securities convertible into Common Stock or Warrants exercisable for Common Stock) is in an amount that is not less than the par value of the Common Stock.

With respect to our opinion as to the Preferred Stock, we have assumed that, at the time of issuance and sale, a sufficient number of shares of Preferred Stock are authorized, designated and available for issuance and that the consideration for the issuance and sale of the Preferred Stock (or Debt Securities convertible into Preferred Stock or Warrants exercisable for Preferred Stock) is in an amount that is not less than the par value of the Preferred Stock.

We have also assumed that any Warrants, Rights and Units offered under the Registration Statement, and the related Warrant Agreement, Rights Agreement and Unit Agreement, as applicable, will be duly authorized, executed and delivered in the forms that will be filed as exhibits to the Registration Statement or incorporated by reference therein.

We have also assumed that with respect to Securities being issued upon conversion of any convertible Preferred Stock, the applicable Preferred Stock will be duly authorized, validly issued, fully paid and nonassessable.

We have also assumed that (i) all Securities will be issued and sold in compliance with the Trust Indenture Act of 1939 and the securities or blue sky laws of various states and in the manner stated in the Registration Statement and the applicable prospectus supplement and (ii) the trustee under the Indenture (the "Trustee") will be qualified pursuant to the Trust Indenture Act of 1939 at the time the Securities are offered or issued (or such later time as may be permitted pursuant to the rules, regulations, interpretations or positions of the Securities and Exchange Commission) as contemplated by the Registration Statement.

Our opinion herein is expressed solely with respect to Federal Securities Laws, the Delaware General Corporation Law and, as to the Debt Securities constituting valid and legally binding obligations of the Company, solely with respect to the laws of the State of New York.

Our opinion is based on these laws as in effect on the date hereof. We express no opinion as to whether the laws of any jurisdiction are applicable to the subject matter hereof. We are not rendering any opinion as to compliance with any federal law or state law, rule or regulation relating to securities, or to the sale or issuance thereof.

Based upon and subject to the foregoing, we are of the opinion that:

1. With respect to the Common Stock offered under the Registration Statement, including the Shares, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus, the ATM Agreement Supplement (with respect to the Shares) and any and all other Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the issuance of the Common Stock has been duly authorized by all necessary corporate action on the part of

the Company; (iii) the issuance and sale of the Common Stock do not violate any applicable law, are in conformity with the Company's then operative Amended and Restated Certificate of Incorporation (the "Certificate of Incorporation") and Amended and Restated Bylaws (the "Bylaws"), do not result in a default under or breach of any agreement or instrument binding upon the Company and comply with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates for the Common Stock have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Common Stock, when issued and sold as contemplated in the Registration Statement, the Base Prospectus, the ATM Agreement Supplement (with respect to the Shares) and any other related Prospectus Supplement(s) and in accordance with any applicable duly authorized, executed and delivered purchase, underwriting or similar agreement, will be duly authorized, validly issued, fully paid and nonassessable.

2. With respect to the Preferred Stock offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the terms and issuance of the Preferred Stock have been duly authorized by all necessary corporate action on the part of the Company; (iii) the terms of the shares of Preferred Stock and their issuance and sale do not violate any applicable law, are in conformity with the Certificate of Incorporation and Bylaws, do not result in a default under or breach of any agreement or instrument binding upon the Company and comply with any applicable requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (iv) the certificates for the Preferred Stock have been duly executed by the Company, countersigned by the transfer agent therefor and duly delivered to the purchasers thereof against payment therefor, then the Preferred Stock, when issued and sold as contemplated in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s) and in accordance with any applicable duly authorized, executed and delivered purchase, underwriting or similar agreement, will be duly authorized, validly issued, fully paid and nonassessable.

3. With respect to any series of the Debt Securities issued under the Indenture and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the Indenture has been duly authorized by the Company and the Trustee by all necessary corporate action; (iii) the Indenture in substantially the form that is filed as an exhibit to the Registration Statement has been duly executed and delivered by the Company and the Trustee; (iv) the issuance and terms of the Debt Securities have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Debt Securities and of their issuance and sale have been duly established in conformity with the Indenture so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and Bylaws, and so as to comply with any requirement, restriction, consent, approval, license or authorization imposed or granted by any court or governmental body having jurisdiction over the Company; and (vi) the Debt Securities have been duly executed and delivered by the Company and authenticated by the Trustee pursuant to the Indenture and delivered against payment therefor, then the Debt Securities, when issued and sold in accordance with the Indenture and a duly authorized, executed and delivered purchase, underwriting or similar agreement, or upon exercise of any Warrants under the Warrant Agreement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

4. With respect to the Warrants issued under the Warrant Agreement and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the Warrant Agreement has been duly authorized by the Company and the Warrant Agent by all necessary corporate action; (iii) the Warrant Agreement has been duly executed and delivered by the Company and the Warrant Agent; (iv) the issuance and terms of the Warrants have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Warrants and of their issuance and sale have been duly established in conformity with the Warrant Agreement and as described in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and Bylaws, and so as to comply with any requirement, restriction, consent, approval, license or authorization imposed or granted by any court or governmental body having jurisdiction over the Company; and (vi) the Warrants have been duly executed and delivered by the Company and authenticated by the Warrant Agent pursuant to the Warrant Agreement and delivered against payment therefor, then the Warrants, when issued and sold in accordance with the Warrant Agreement and a duly authorized, executed and delivered purchase, underwriting or similar agreement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

5. With respect to the Rights issued under the Rights Agreement and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the Rights Agreement has been duly authorized by the Company and the Rights Agent by all necessary corporate action; (iii) the Rights Agreement has been duly executed and delivered by the Company and the Rights Agent; (iv) the issuance and terms of the Rights have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Rights and of their issuance have been duly established in conformity with the Rights Agreement and as described in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and Bylaws, and so as to comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (vi) the Rights have been duly executed and delivered by the Company and authenticated by the Rights Agent pursuant to the Rights Agreement and delivered against payment therefor, then the Rights, when issued and sold in accordance with the Rights Agreement and a duly authorized, executed and delivered purchase, underwriting or similar agreement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

6. With respect to the Units issued under the Unit Agreement and offered under the Registration Statement, provided that (i) the Registration Statement and any required post-effective amendment thereto have all become effective under the Securities Act and the Base Prospectus and any and all Prospectus Supplement(s) required by applicable laws have been delivered and filed as required by such laws; (ii) the Unit Agreement has been duly authorized by the Company and the Unit Agent by all necessary corporate action; (iii) the Unit Agreement has been duly executed and delivered by the Company and the Unit Agent; (iv) the issuance and terms of the Units have been duly authorized by the Company by all necessary corporate action; (v) the terms of the Units and of their issuance and sale have been duly established in conformity with the Unit Agreement and as described in the Registration Statement, the Base Prospectus and the related Prospectus Supplement(s), so as not to violate any applicable law or result in a default under or breach of any agreement or instrument binding upon the Company, so as to be in conformity with the Certificate of Incorporation and Bylaws, and so as to comply with any requirement or restriction imposed by any court or governmental body having jurisdiction over the Company; and (vi) the Units have been duly executed and delivered by the Company and authenticated by the Unit Agent pursuant to the Unit Agreement and delivered against payment therefor, then the Units, when issued and sold in accordance with the Unit Agreement and a duly authorized, executed and delivered purchase, underwriting or similar agreement, will be valid and legally binding obligations of the Company, enforceable against the Company in accordance with their terms.

We hereby consent to the filing of this opinion as an exhibit to the Registration Statement and to the reference to our firm under the caption "Legal Matters" in the Base Prospectus and the ATM Agreement Supplement which form parts of the Registration Statement. In giving such permission, we do not admit hereby that we come within the category of persons whose consent is required under Section 7 of the Securities Act, or the rules and regulations of promulgated thereunder. This opinion is expressed as of the date hereof, and we disclaim any undertaking to advise you of any subsequent changes of the facts stated or assumed herein or of any subsequent changes in applicable law.

Very truly yours,

/s/ Morrison & Foerster LLP

CONSENT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

We consent to the reference to our firm under the caption “Experts” in the Registration Statement (Form S-3) and related Prospectuses of Marrone Bio Innovations, Inc. for the registration of up to a maximum aggregate offering price of \$50,000,000 of its common stock, preferred stock, debt securities, warrants, rights and/or units and to the incorporation by reference therein of our report dated March 30, 2016, with respect to the consolidated financial statements of Marrone Bio Innovations, Inc. included in its Annual Report (Form 10-K) for the year ended December 31, 2015, filed with the Securities and Exchange Commission.

/s/ Ernst & Young LLP

Sacramento, California

December 9, 2016

POWER OF ATTORNEY

KNOW BY ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below hereby constitutes and appoints Pamela G. Marrone and James B. Boyd, and each of them (with full power of each to act alone), severally, as his or her true and lawful attorneys-in-fact and agents, with full power of substitution and resubstitution, for him or her and to execute in his or her name, place, and stead (individually and in any capacity stated below) a “shelf” registration statement on Form S-3 covering the registration of \$50 million of securities of Marrone Bio Innovations, Inc. (“Registration Statement”), and any and all amendments to the Registration Statement, and all documents and instruments necessary or advisable in connection therewith, and to file the same, with exhibits thereto and other documents in connection therewith, with the Securities and Exchange Commission (or any other governmental regulatory authority), each of said attorneys-in-fact and agents to have power to act with or without the others and to have full power and authority to do and to perform in the name and on behalf of each of the undersigned every act whatsoever necessary or advisable to be done in the premises as fully and to all intents and purposes as any of the undersigned might or could do in person, hereby ratifying and confirming all that said attorneys-in-fact and agents and/or any of them, or their substitute or substitutes, may lawfully do or cause to be done by virtue hereof.

Dated: November 28, 2016

/s/ Tim Fogarty
Tim Fogarty

/s/ Michael Benoff
Michael Benoff

/s/ George Kerckhove
George Kerckhove

/s/ Richard Rominger
Richard Rominger

/s/ Kathleen A. Merrigan
Kathleen A. Merrigan, Ph.D.

/s/ Zachary S. Wochok
Zachary S. Wochok, Ph.D.